OHIO WEATHER FOR 1917

OHIO
Agricultural Experiment Station

WOOSTER, OHIO, U. S A., JUNE, 1918

BULLETIN 324

OHIO AGRICULTURAL EXPERIMENT STATION

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[1]In cooperation with the College of Agriculture, Ohio State University, Columbus.
[2]On leave of absence in military service.
[3]In cooperation with the U. S. Department of Agriculture.

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BULLETIN
OF THE
Ohio Agricultural Experiment Station

NUMBER 324 JUNE, 1918

OHIO WEATHER FOR 1917

W H ALEXANDER AND C A PATTON

EXPLANATORY

BY THE DIRECTOR

The extension of the work of the Experiment Station over the State, through the district and county experiment farms, makes it necessary that its weather records be state-wide in their application. Hitherto the only attempt at such application has been to give the average rainfall and temperature for the entire State for comparison with the observations taken at the main station at Wooster, but it is now possible, through the cooperation of W. H. Alexander, section director for Ohio of the U. S. Weather Bureau, to supplement these records with a series of diagrammatic maps, showing at a glance the comparative weather conditions for the various sections of the State.

These maps are followed by the usual summary tables prepared by Mr. Patton.

SPECIAL POINTS OF INTEREST

The meteorological history of 1917 recounted here in a highly abbreviated form will not be without its points of very special interest. For instance, we find the year was persistently cool or cold every month except March showing a deficiency in temperature, which ranged in amount from 0.3° to 9.6°, and the average for the year was 3°. Three months of the year, May, October and December, were unprecedentedly cold. It is to be noted also that zero temperatures, or lower, occurred in 4 months of the year, that frost temperatures were recorded in every month of the year except in June, July and August and that even in June near-frost temperature (33°) occurred at two stations. The cold weather that set in on or about the 6th of December, by its great severity and persistency, not only raised the month of December to the rank of a "record-breaker," but proved to be the beginning of one of the severest winters on record in this State, if not the severest.

In the mater of precipitation, the record does not show quite so many or so marked abnormalities, the monthly (with one exception) and the accumulated amounts keeping fairly close to the normal throughout the year, the year ending with a total deficiency of only 1.25 inches. The exception was the month of October, which stands out quite conspicuously by reason of its excessive precipitation record. In fact, we find this month not only one of the coldest Octobers on record, but also one of the wettest. Immediately following the excessive rains of October was a period of about 3 weeks during which there was almost no rain in any part of the State; indeed, November and December were decidedly deficient in rainfall. There were also two dry spells in September, one of 11 and the other of 5 days duration. On the whole, however, the precipitation of the year was well distributed and sufficient.

The prevailing meteorological conditions during much of the year, except perhaps the last 2 or 3 months, were highly favorable, it seems, for the development of local storms, such as thunderstorms, windstorms and even tornadoes. Whatever else one may say about the weather of 1917, there is one great outstanding fact of supreme importance; namely, it enabled the farmers of the State to grow unusually large crops of corn, wheat, oats and hay and to harvest and store most of these except corn in excellent condition.

Mean temperature, January, 1917

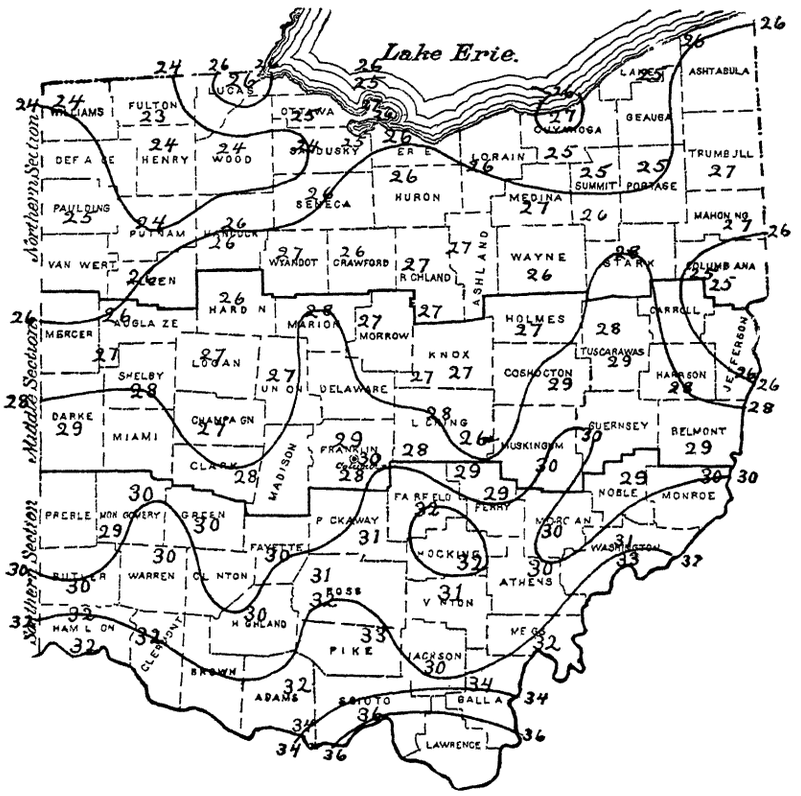

Fig. 1.—The mean temperature for the State was 28°. The highest local monthly mean was 35.6° at Portsmouth, Scioto County and the lowest was 22.6° at Wauseon, Fulton County. The highest temperature recorded during the month was 74° at Green on the 31st and the lowest was —16° at Green Hill on the 15th.

Temperature departures, January, 1917

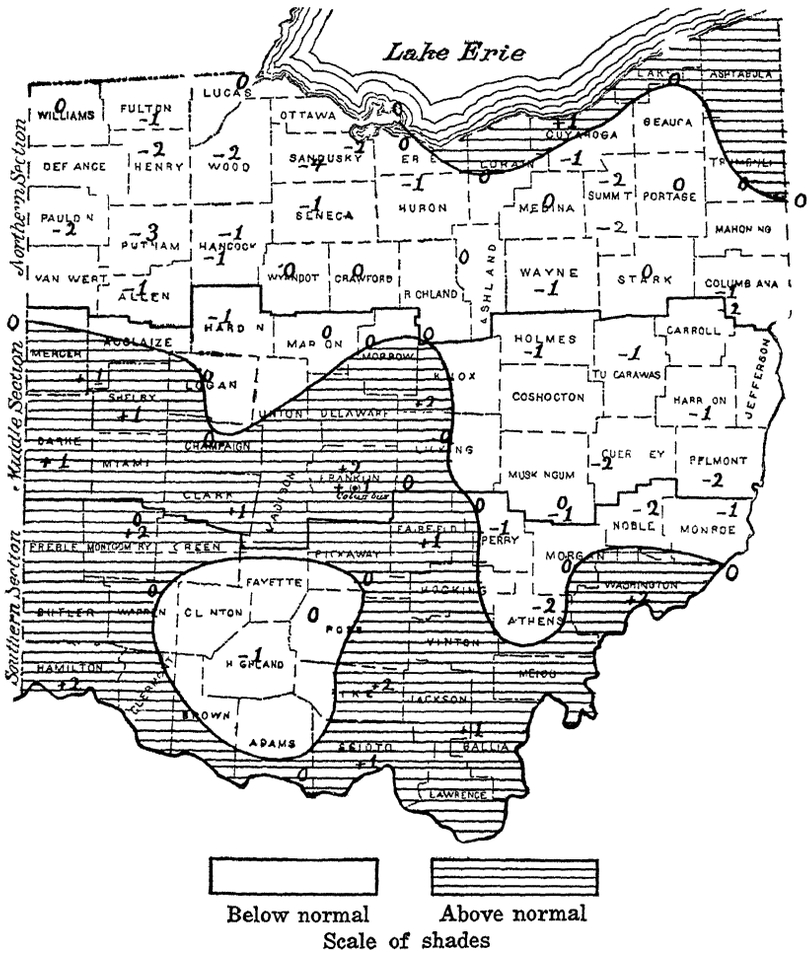

Fig. 2.—The mean temperature for the State was 0 4° below the normal. Moderately warm weather prevailed throughout the first decade; the second decade was uniformly and severely cold, and the third decade was quite changeable, but for the most part warm.

Precipitation, January, 1917

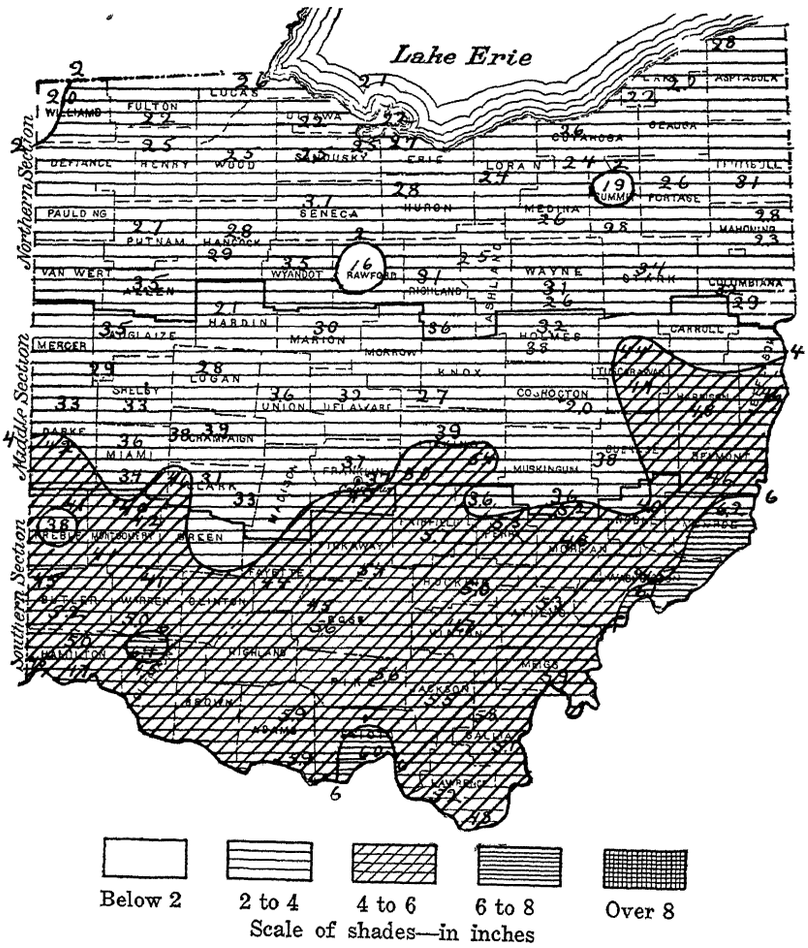

Fig 3.—The average precipitation for the State was 3 78 inches The largest amount reported was 6.37 inches at Milford, Clermont County, and the least amount was 1 55 inches at Bucyrus, Crawford County Precipitation was well distributed throughout the month, there being but few days on which it did not occur. The average number of days with precipitation was 11. The greatest 24-hour fall was 2.4 inches at West Manchester on the 5th.

Precipitation departures, January, 1917

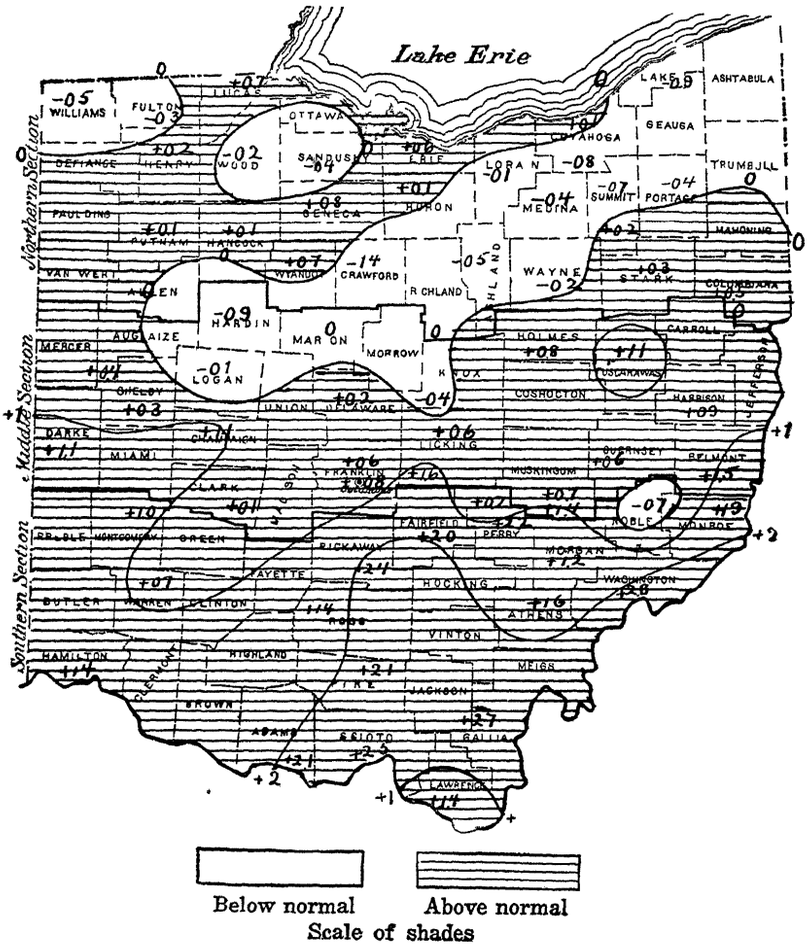

Fig. 4.—The precipitation averaged 0.39 inch above the normal. The excess was fairly well distributed over the State, being greatest in the central-southern counties.

Snowfall, January, 1917

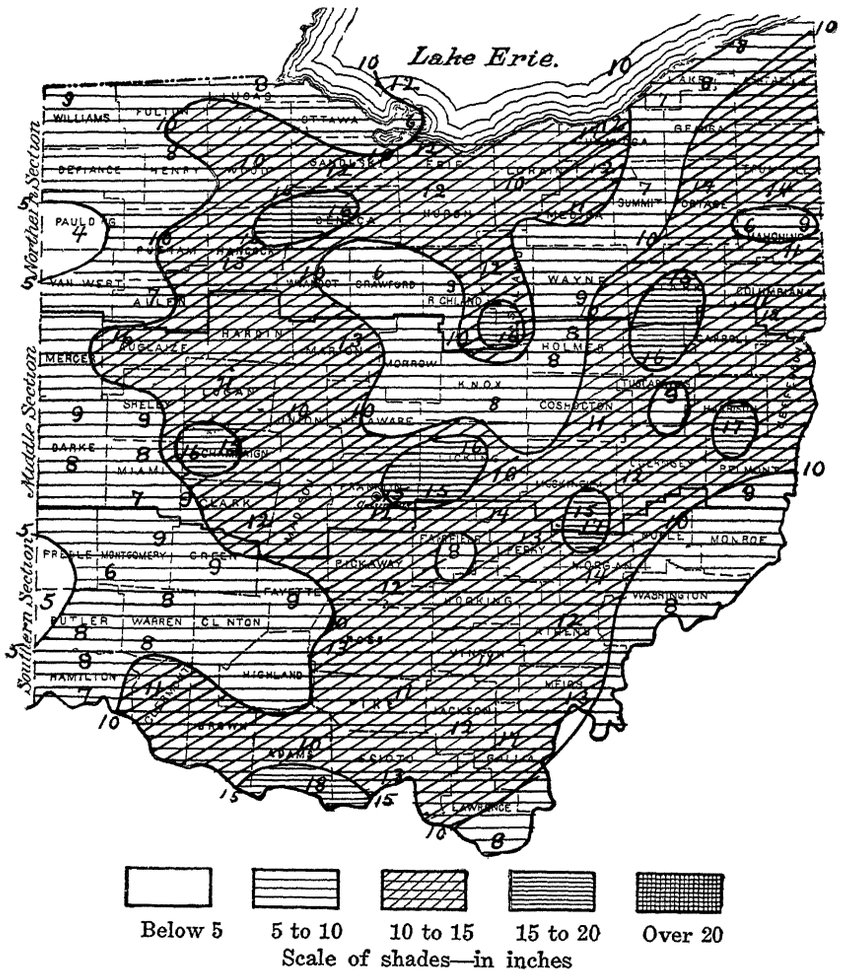

Fig. 5.—The average snowfall for the State was 11 inches, the heaviest snows for the month occurring in the counties along the lower Ohio River, Green, Adams County, reporting the greatest monthly amount, 18 inches.

Mean temperatures, February, 1917

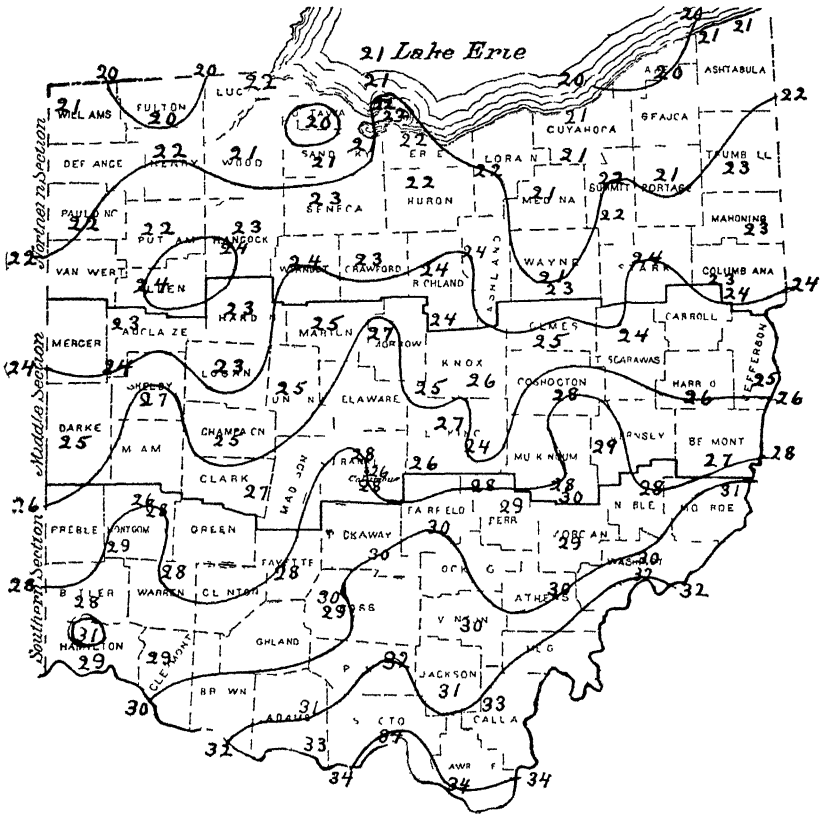

Fig. 6.—The mean temperature for the State was 25.4°. The highest local monthly mean was 75° at Ironton and Portsmouth, and the lowest was —21° at North Royalton and Norwalk.

Temperature departures, February, 1917

Fig. 7.—The mean temperature for the month was 2° below the normal. The deficiency was quite general, a slight excess being noted only in south-central counties.

Precipitation, February, 1917

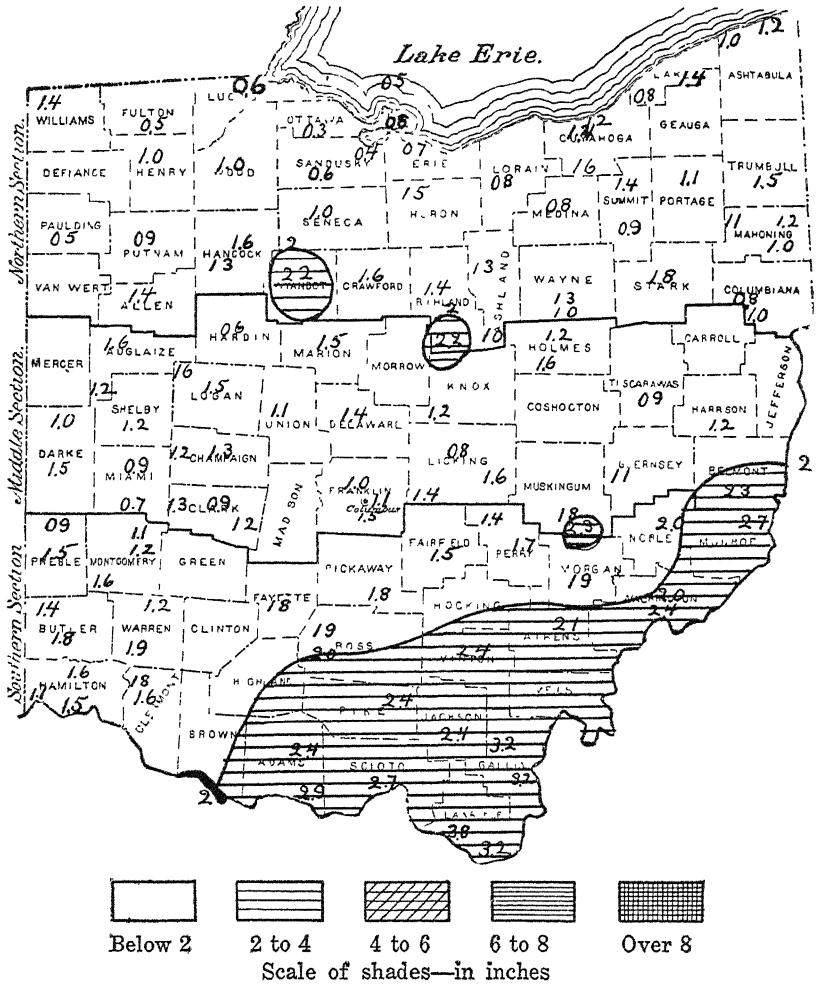

Fig. 8.—The average precipitation for the State was 1.43 inches, the largest local monthly amount being 3.81 inches at Ironton and the least being 0.28 inch at Oak Harbor. The average number of days with 0.01 inch precipitation was 7.

Precipitation departures, February, 1917

Fig. 9.—The precipitation averaged 1.32 inches below the normal. The only excess was in Lawrence and Gallia Counties, and the deficiency was greatest in the northwestern and northern counties.

Snowfall, February, 1917

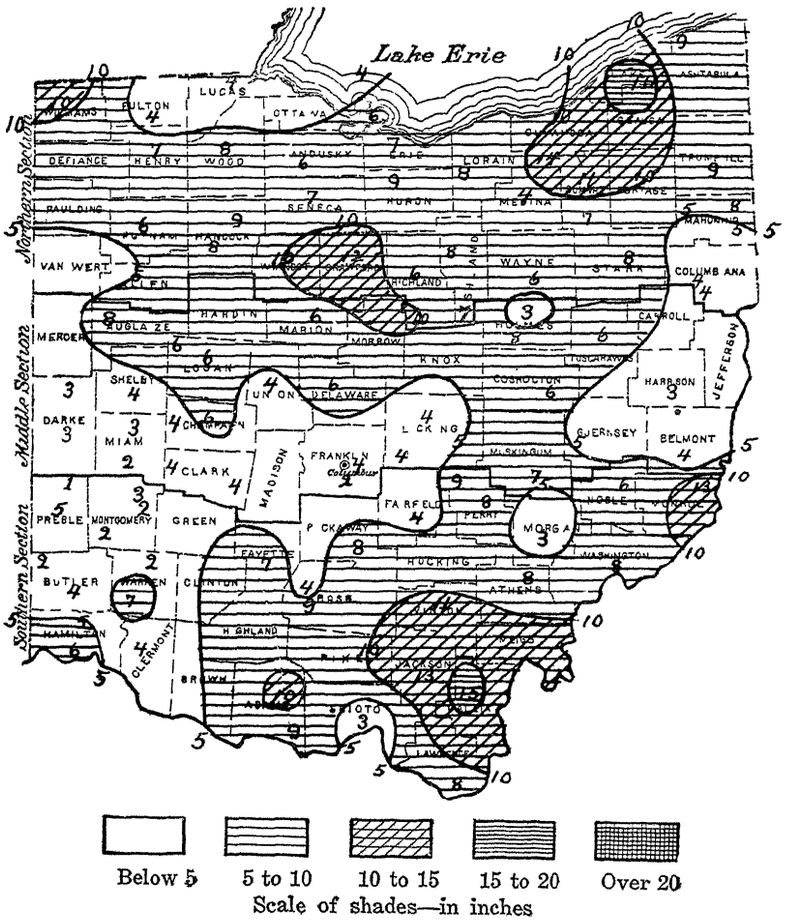

Fig. 10—The average snowfall for the State was 6.6 inches; the greates amount at any one station was 16 inches, at Hillhouse, Lake County.

Mean temperatures, March, 1917

Fig. 11.—The average temperature for the State was 39.6°. The highest monthly mean was 45 4° at Ironton, Lawrence County, and the lowest was 36° at Hillhouse, Lake County The maximum for the month was 84° at Ironton on the 31st and the lowest was —9° at Milligan on the 6th Temperatures after the first week were quite moderate throughout the month and favorable to plant growth

Temperature departures, March, 1917

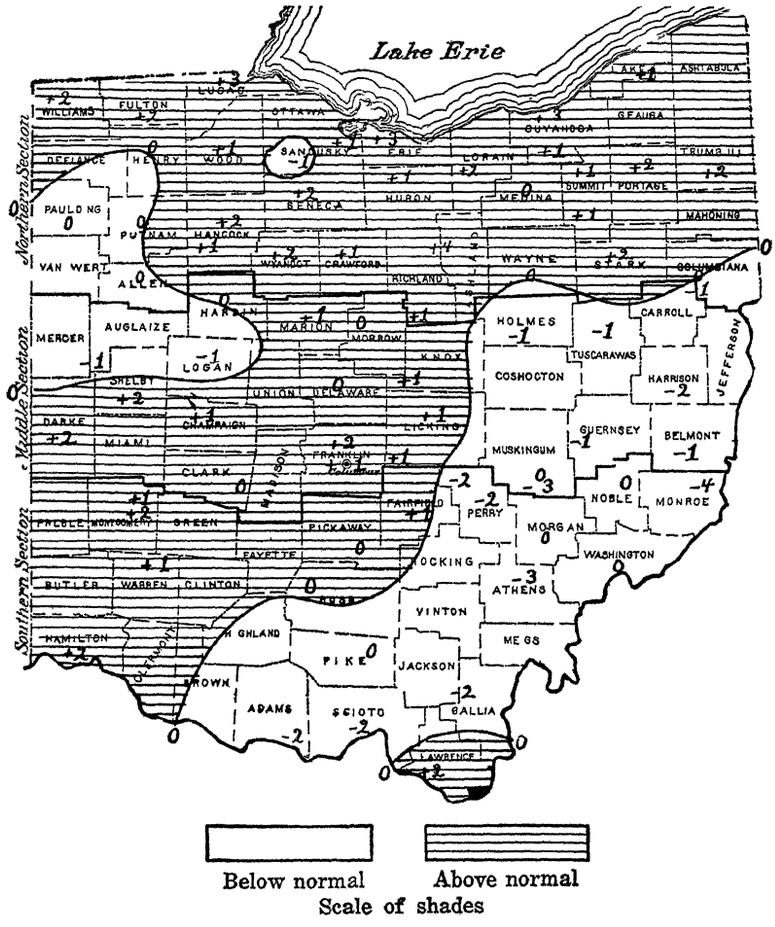

Fig. 12.—The mean temperature was 0.5° above the normal, moderate temperatures prevailing throughout the later decades of the month.

Precipitation, March, 1917

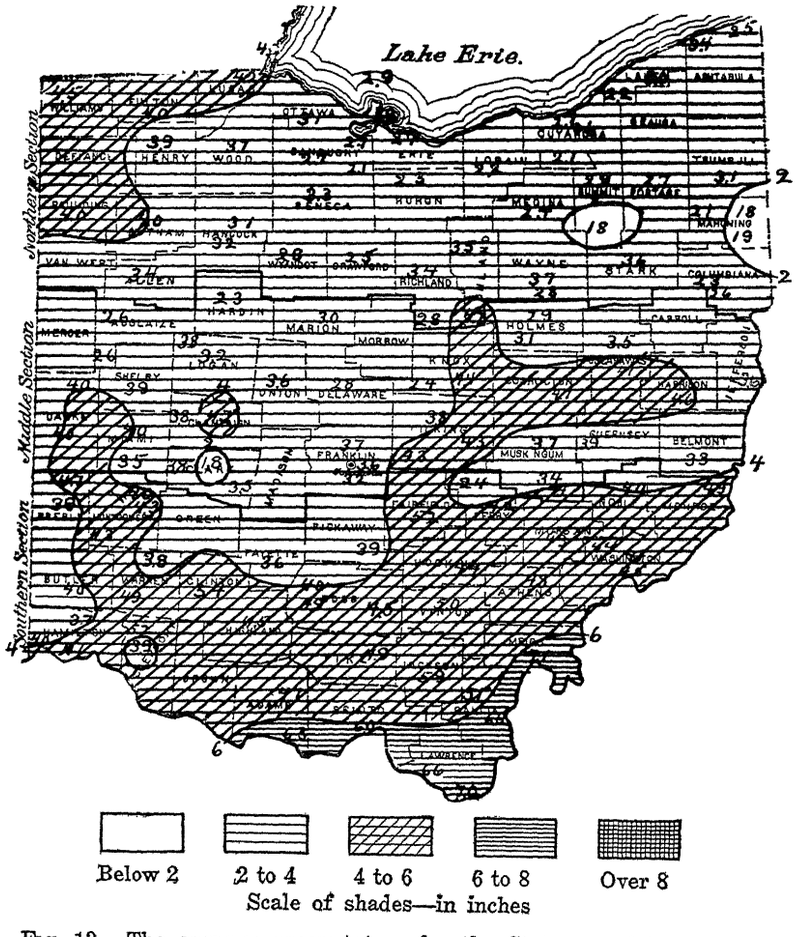

Fig. 13.—The average precipitation for the State was 3.65 inches. The largest amount reported was 7.1 inches at Syracuse, and the least 1 6 inches at Prospect. The greatest 24-hour fall was 2.1 inches at Wilmington, on the 11th. The average number of days with 0.01 inch or more precipitation was 12.

Precipitation departures, March, 1917

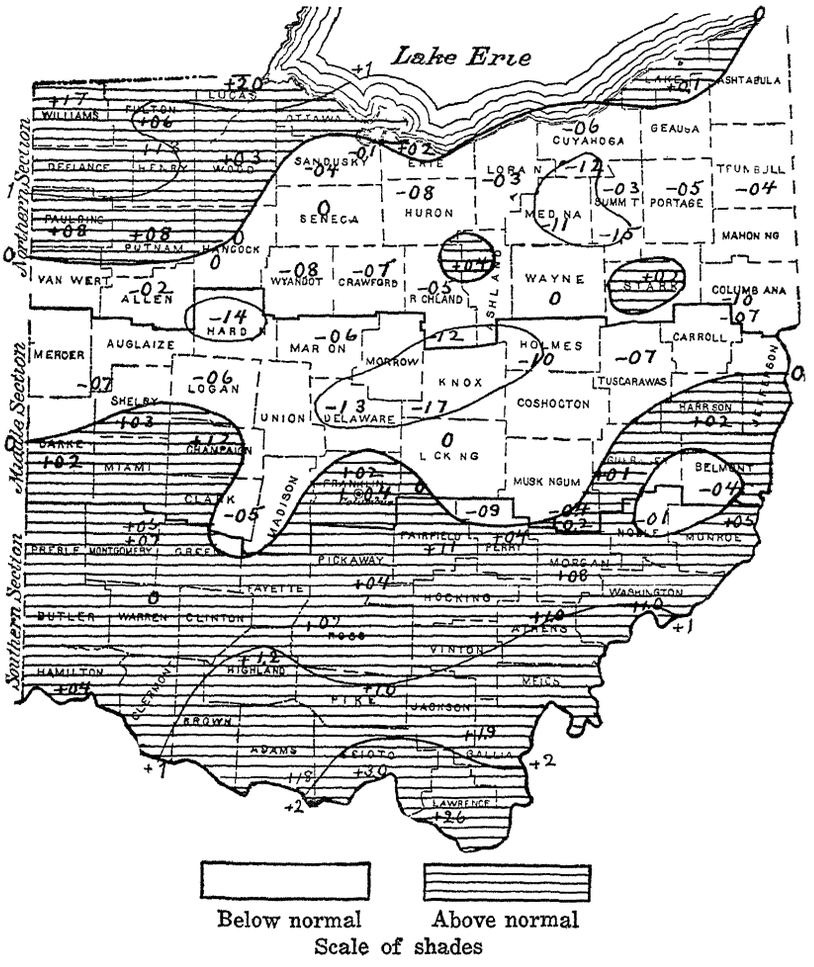

Fig 14.—The precipitation for the month was 0 07 inch above the normal The areas of excess and of deficiency were about equal in extent.

Snowfall, March, 1917

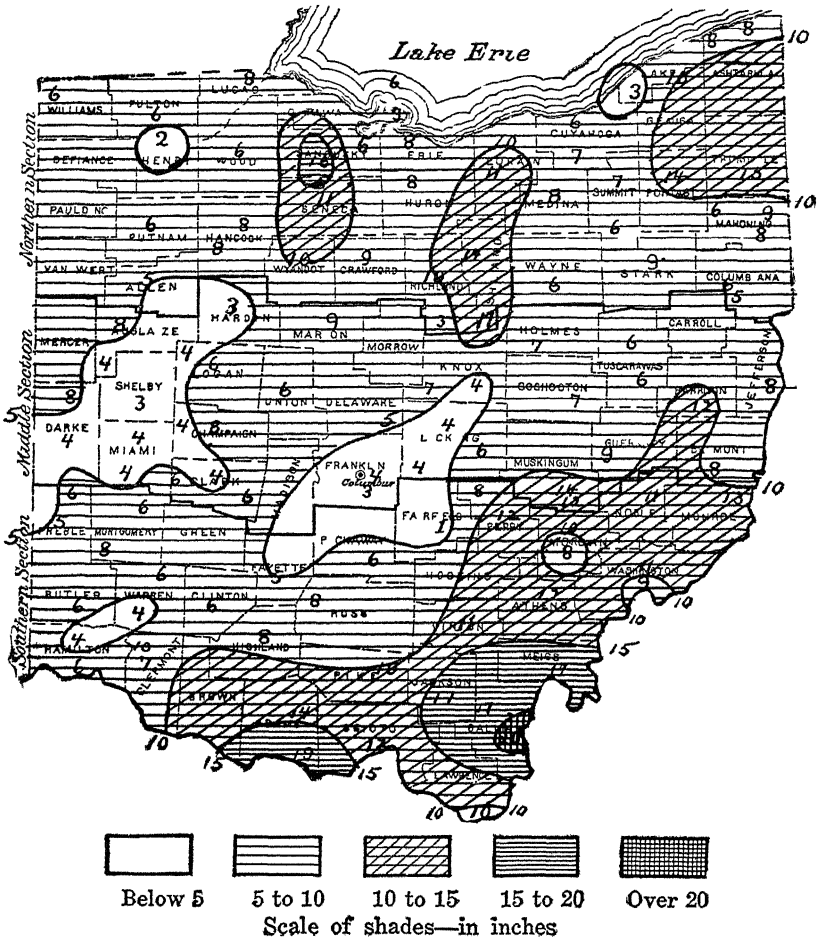

Fig. 15.—The snowfall for the month averaged for the State 7.7 inches, which was somewhat above the average for March. The heaviest snowfall was 19 inches at Green, Adams County.

Mean temperatures, April, 1917

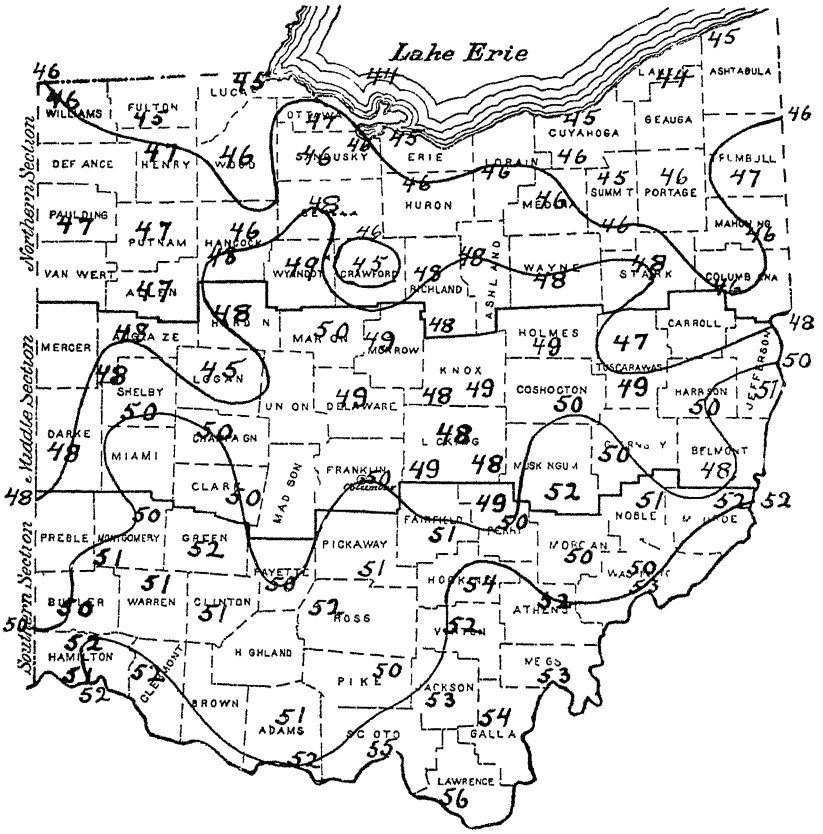

Fig. 16—The mean temperature for the State was 48.7°, the highest station mean being 54.6° at Portsmouth and the lowest 44.5° at Hillhouse, Lake County. The highest temperature reported was 90° at Ironton and Portsmouth on the 20th and the lowest was 13° at Peebles on the 9th.

Temperature departures, April, 1917

Fig. 17.—The mean temperature for the month was 1.1° below the normal. There were four abnormally warm days, the 1st, 18th, 19th and 20th, and four abnormally cold days, the 8th, 9th, 13th and 14th.

Precipitation, April, 1917

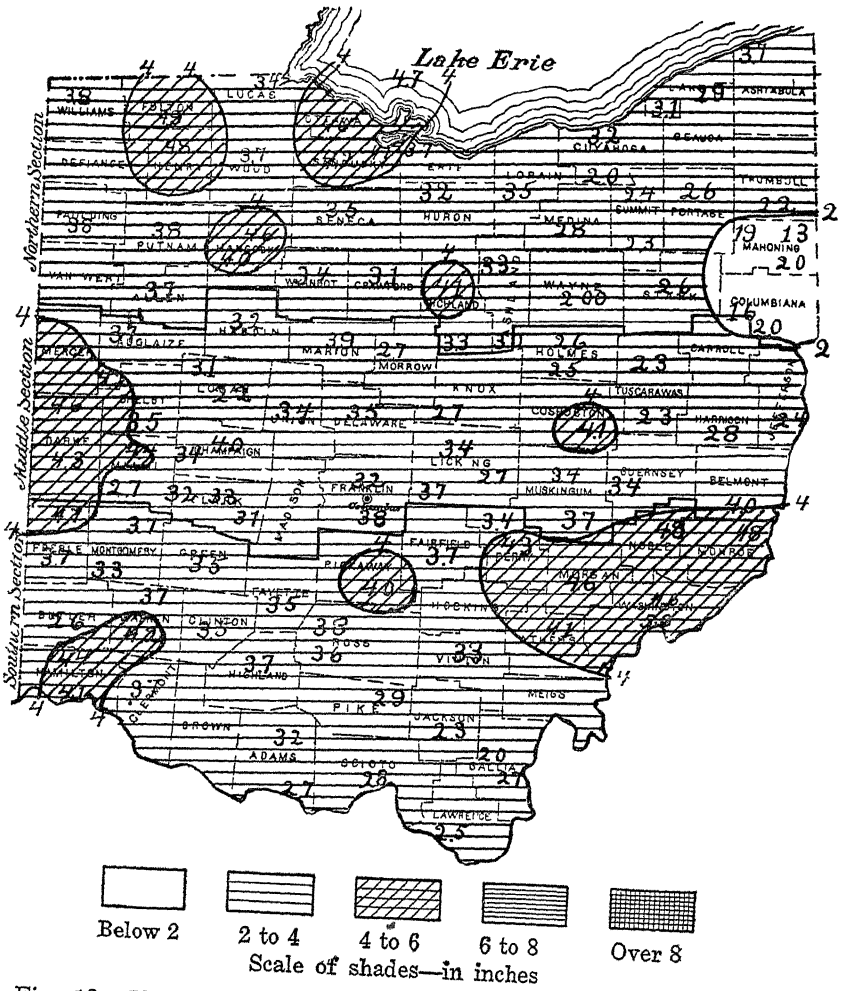

Fig. 18.—The precipitation for the month averaged 3.38 inches. The largest monthly amount was 4.96 inches at Marietta and the least was 1.27 inches at Youngstown. The greatest 24-hour rainfall was 2.46 inches at Beverly on the 6th. The number of days with 0.01 inch or more of precipitation was 10.

Precipitation departures, April, 1917

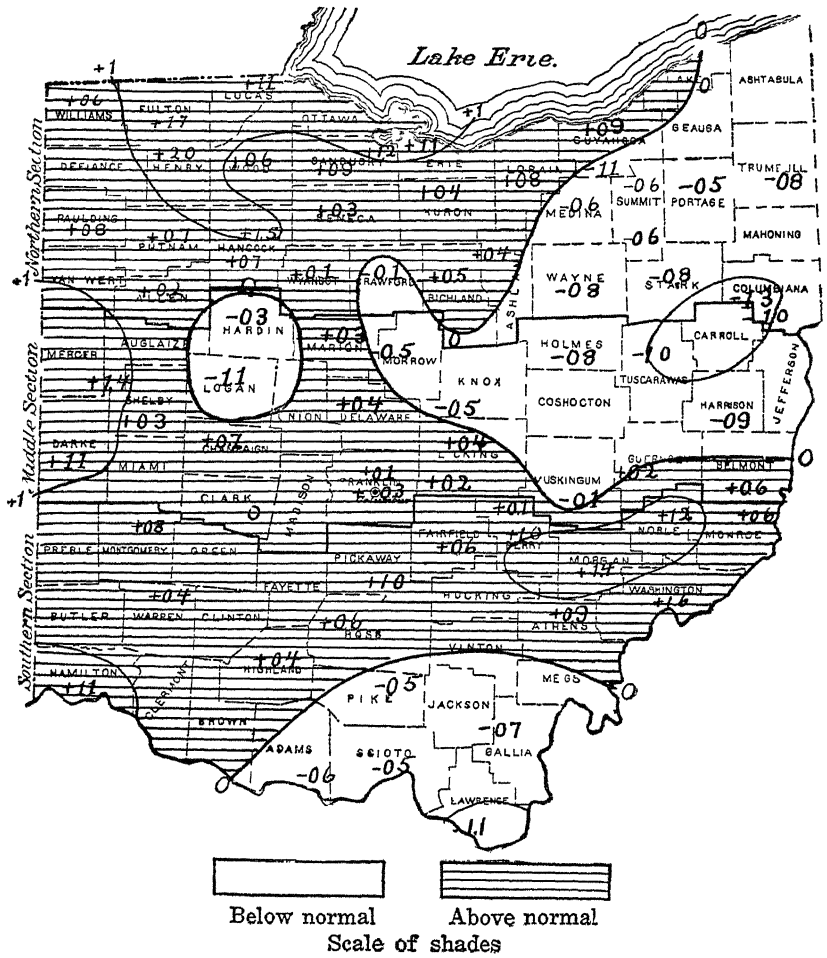

Fig. 19.—The average precipitation for the State was 0.25 inch above the normal. The excess was general over the western half of the State, and the deficiency was greatest in extreme eastern counties.

Snowfall, April, 1917

Fig 20—The average snowfall for the State was 0 7 inch and the greates local monthly fall was 4 inches at Demos and Frankfort.

Mean temperatures, May, 1917

Fig. 21.—The mean temperature for the State was 54.1°, ranging from 49.8° at Hillhouse to 59.4° at Ironton The highest temperature was 93°, recorded at Green, Adams County, on the 17th and the lowest was 26° at Green Hill on the 3rd and at Bellefontaine on the 10th. The month was quite cold, in fact, as cold as any May in more than 60 years.

Temperature departures, May, 1917

Fig. 22.—The average temperature for the month was 7° below the normal, the greatest deficiency in 46 years. Frosts were late and in instances severe, and considerable damage was done to early truck crops and other tender plants.

Precipitation, May, 1917

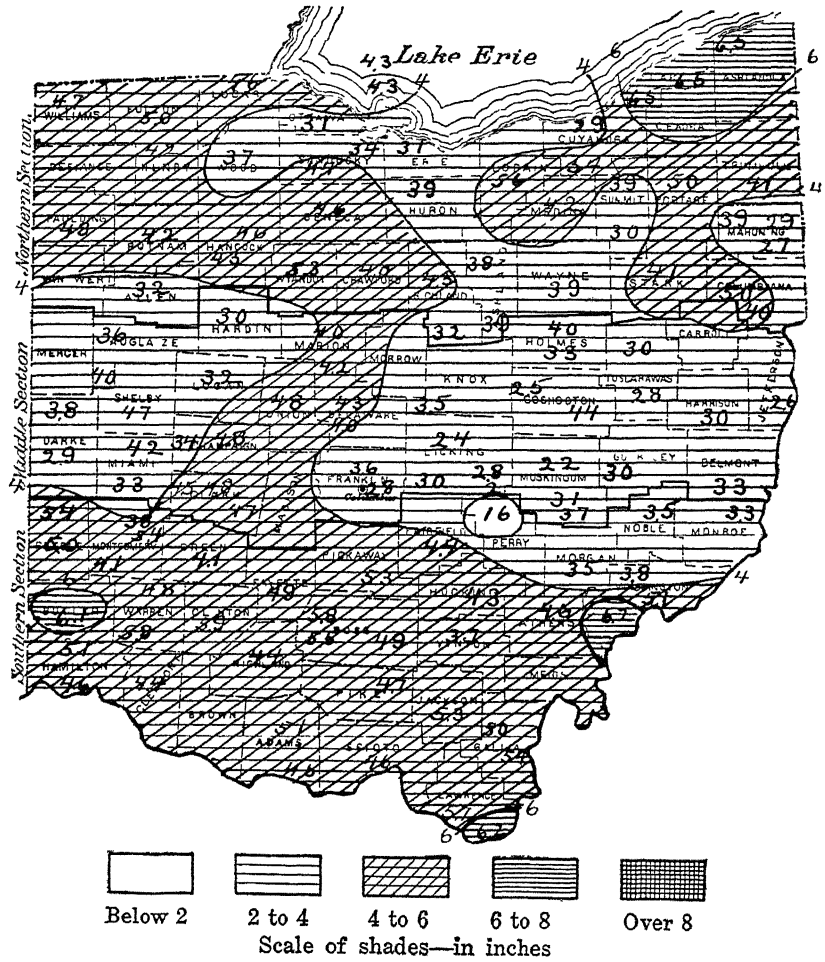

Fig. 23.—The average precipitation for the State was 4.18 inches, station amounts ranging from 1.61 inches at Somerset to 6.51 inches at Wickliffe. The greatest 24-hour fall was 4.12 inches at Ironton on the 27th and 28th. The average number of days with 0.01 inch or more precipitation was 13.

Precipitation departures, May, 1917

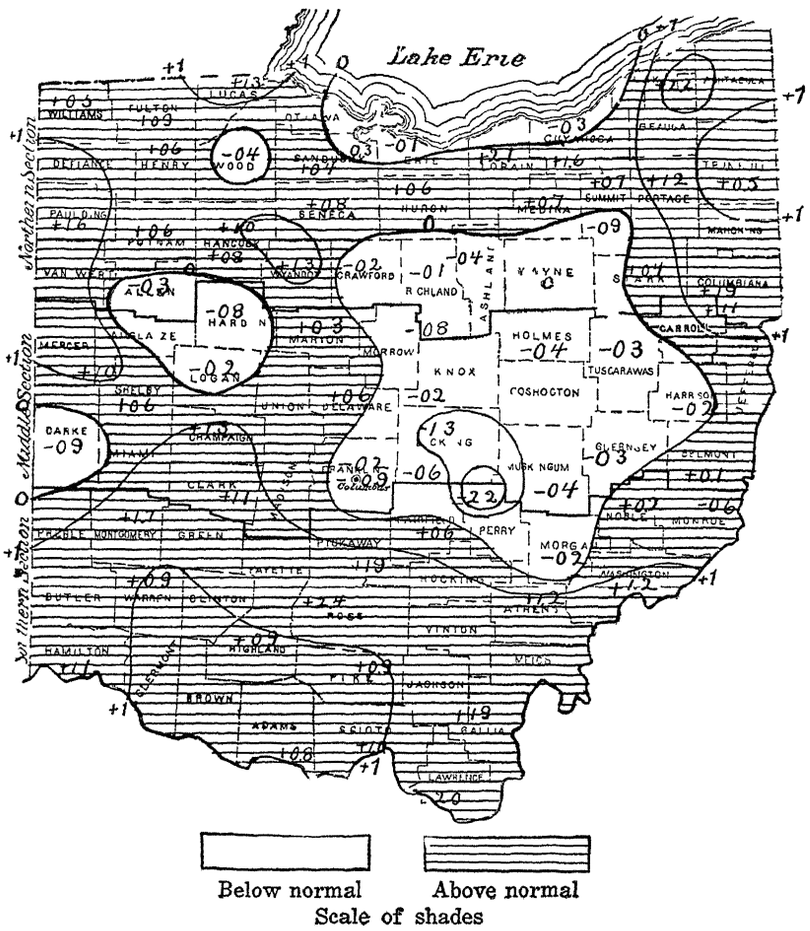

Fig. 24.—The average precipitation for the State was 0.45 inch above the normal, and occurred on 13 days. The excess was general, except over the east-central counties, where a marked deficiency obtained.

Mean temperatures, June, 1917

Fig. 25.—The average temperature for the State was 66.9°, ranging from 64.3° at Hiram, Portage County, to 72.4° at Ironton, Lawrence County. The highest temperature for the month was 100° at Xenia and the lowest was 33° at Millport and Green Hill. The greatest daily range was 45° at Amesville on the 18th.

Temperature departures, June, 1917

Fig. 26.—The average temperature for the month was 2 2° below the normal. The deficiency was quite evenly distributed, a slight excess being noted only in the extreme southern portions of Ohio River counties.

Precipitation, June, 1917

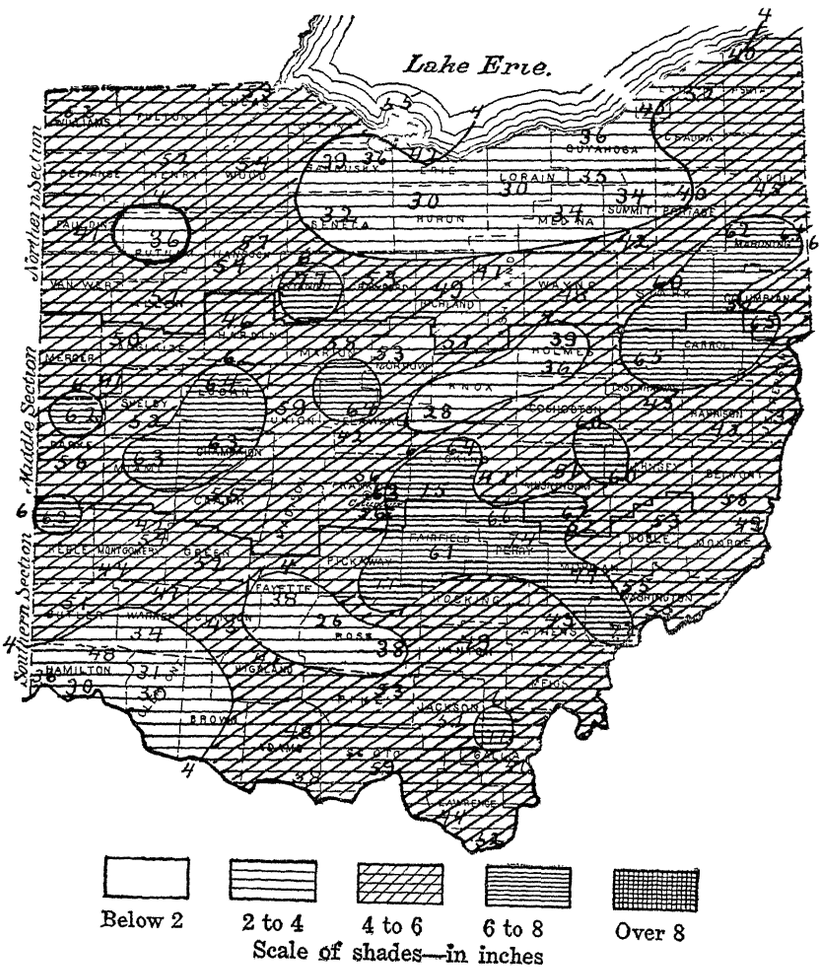

Fig. 27.—The average rainfall for the State was 4.99 inches, the largest monthly amount reported from any station being 8.34 inches at Prospect and the least 2 63 inches at Frankfort The greatest 24-hour fall was 2.99 inches at Sandusky on the 5th and 6th. The rains were well distributed throughout the month, falling on 14 days.

Precipitation departures, June, 1917

Fig. 28.—The average precipitation for the State was 1 25 inches above the normal. Rains were frequent and locally heavy throughout the first and second decades of the month, and on the 27th, 28th and 29th, and were often accompanied by electrical disturbances, some of which were of a very violent character.

Mean temperatures, July, 1917

Fig. 29.—The average temperature for the State for July was 72.3°, ranging from 68.6° at Green Hill, Columbiana County, to 75.4° at Portsmouth, Scioto County. The highest temperature reported was 103° at Danbury on the 31st and the lowest was 43° at Medina on the 5th. The greatest daily range was 44° at Findlay on the 28th.

Temperature departures, July, 1917

Fig. 30.—The average temperature for the month of July was 1.3° below the normal. The deficiency was greatest in western localities, and slightly greater in the southern and middle counties than in the northern.

Precipitation, July, 1917

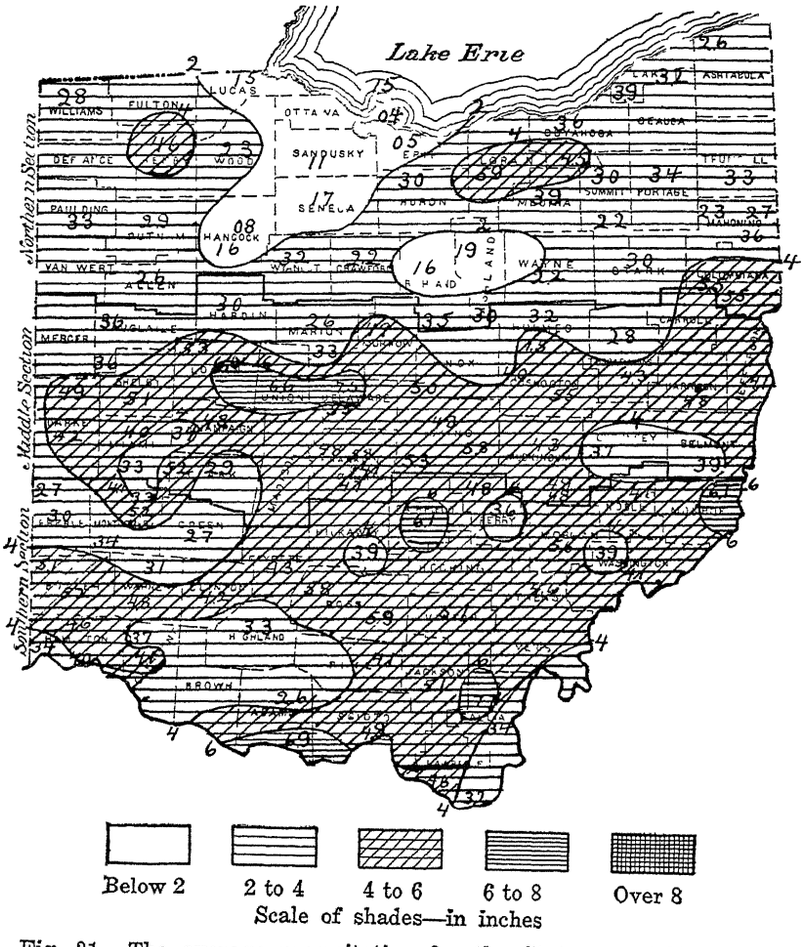

Fig. 31.—The average precipitation for the State was 3 88 inches, the heaviest monthly station amount being 7.66 inches at Thurman, Gallia County. The greatest 24-hour fall was 3.07 inches at Delaware on the 7th. Other stations reporting 2.50 inches or more in 24 hours were Oberlin, 2.70; Sidney, 2.64 inches.

Precipitation departures, July, 1917

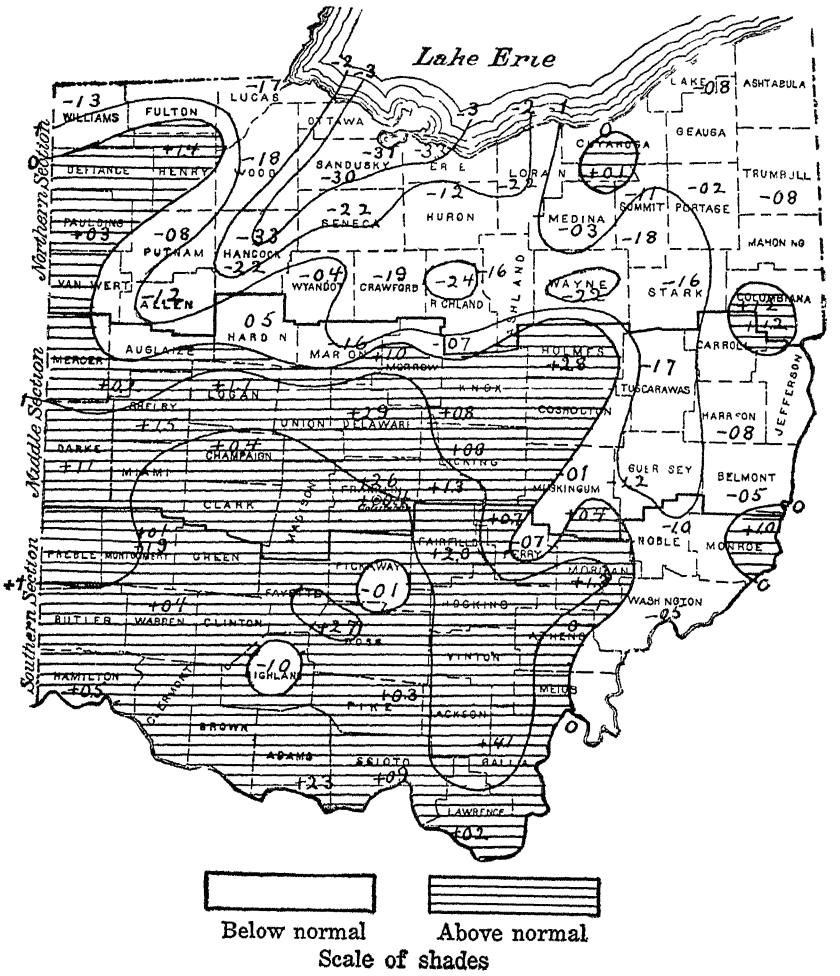

Fig. 32.—The average rainfall for the State for July was 0.1 inch below the normal. A marked excess was noted over the southwestern half of the State, while a deficiency obtained over the northeastern counties.

Mean temperatures, August, 1917

Fig. 33. The average temperature for the State for August was 71.3°, ranging from 67.7° at Green Hill, Columbiana County, to 75.3° at Portsmouth, Scioto County. The highest temperature reported from any station was 101° at Danbury on the 1st and the lowest was 38° at Peebles on the 26th. The greatest daily range was 47° at Amesville on the 26th.

Temperature departures, August, 1917

Fig. 34.—The mean temperature for the State was 0.3° below the normal a slight excess being noted over the extreme northwest and the northeastern counties, with local excesses over the southern counties The temperatures as a whole were equable and the month of August unusually pleasant.

Precipitation, August, 1917

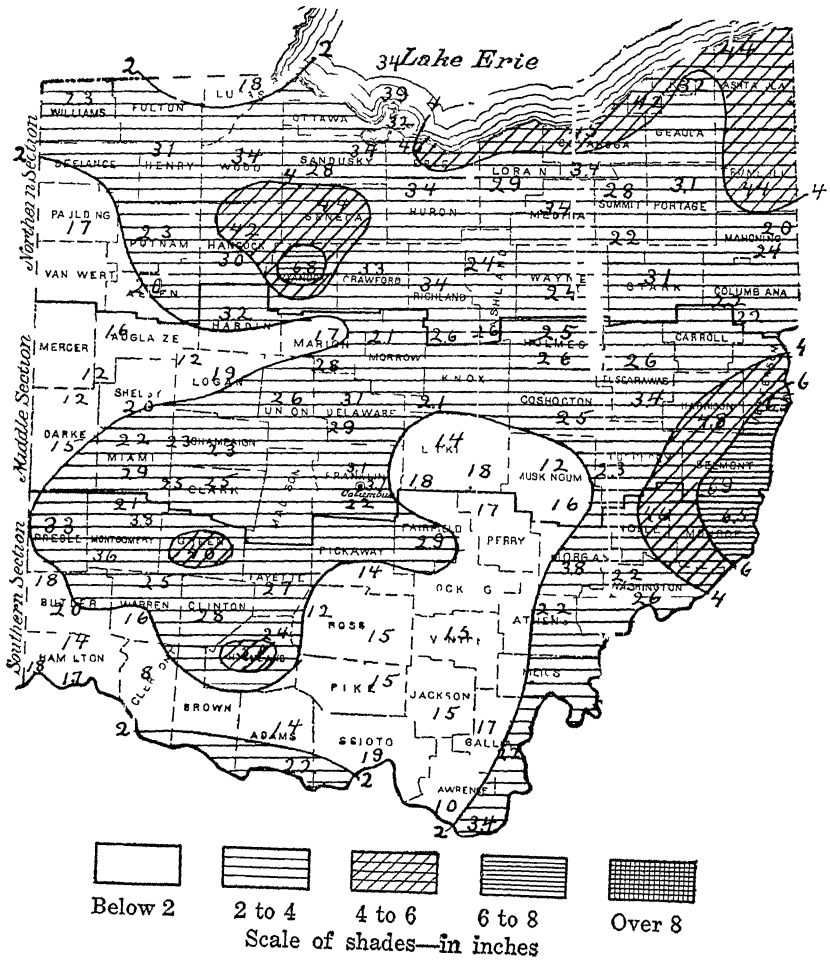

Fig. 35.—The average precipitation for the State was 2.7 inches, ranging from 1.01 inches at Ironton to 6.86 inches at Demos. The greatest 24-hour fall was 3 08 inches at Dayton on the 21st-22d. Other stations reporting 2.5 inches or more precipitation in 24 hours were Demos, 2.74; Germantown, 2.67; Hillsboro, 2.55 inches.

Precipitation departures, August, 1917

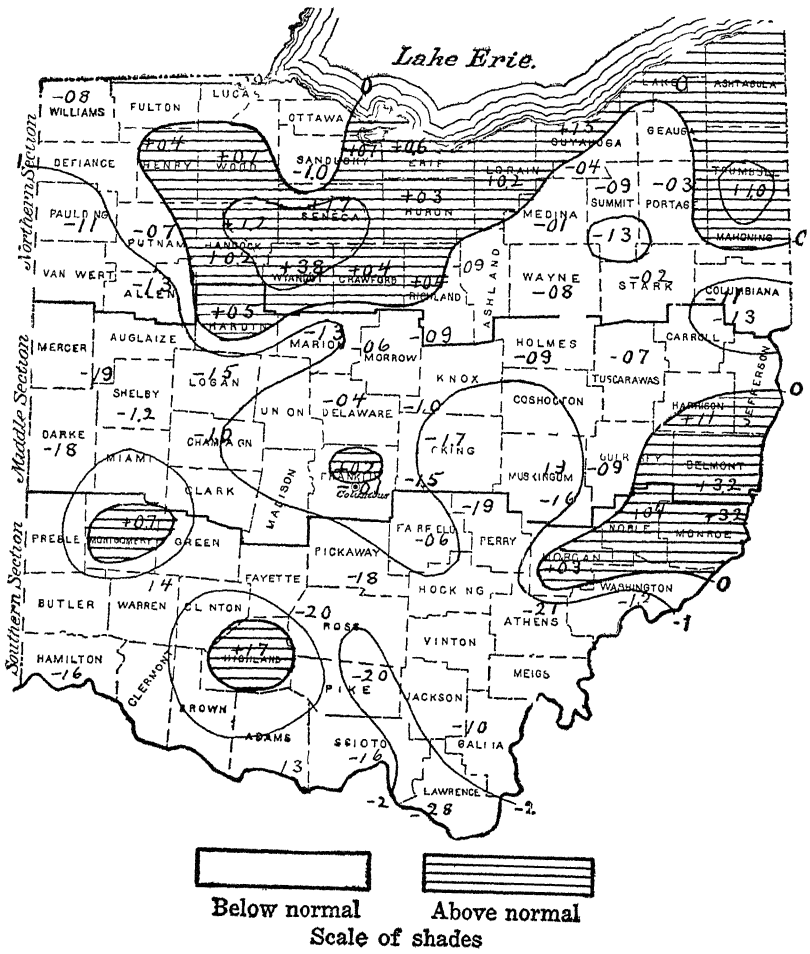

Fig. 36.—The average rainfall for the State was 0.36 inch below the normal. The deficiency was greatest in western counties, and a slight excess was noted over the northern counties and over sections of the southeast portion.

Mean temperatures, September, 1917

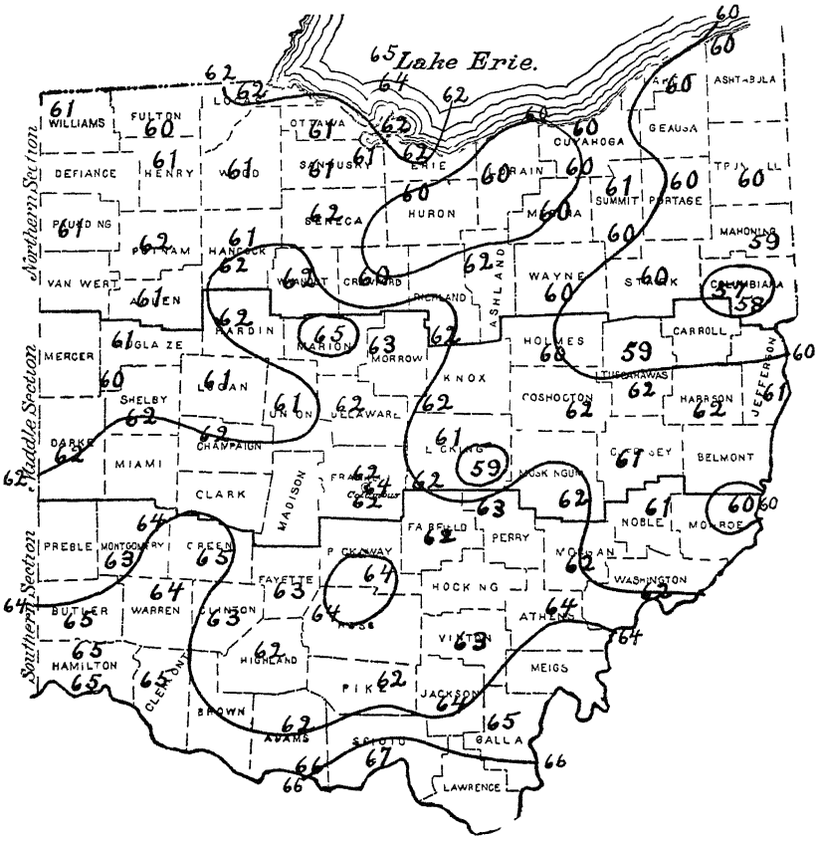

Fig. 37.—The mean temperature for the State for September was 61.9°, ranging from 57.4° at Green Hill, Columbiana County, to 67° at Portsmouth, Scioto County. The highest temperature reported from any station was 93° at Hamilton on the 2d and the lowest was 28° at Millport on the 25th. The greatest daily range was 50° atMillport on the 26th.

Temperature departures, September, 1917

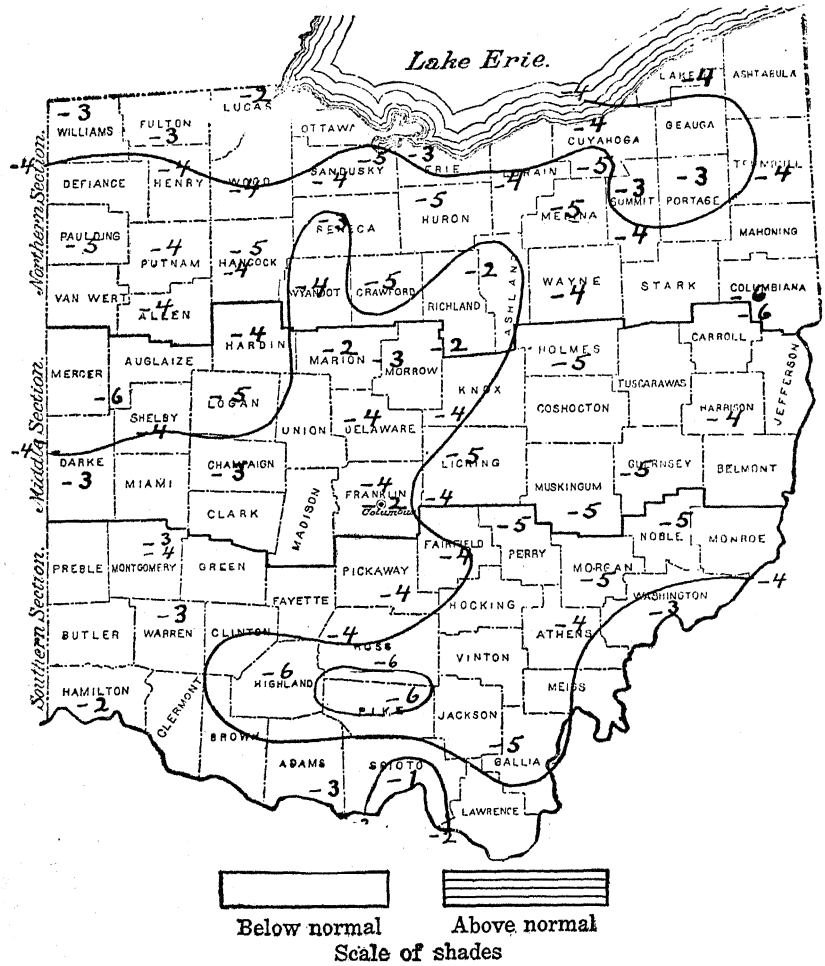

Fig. 38.—The average temperature for the State was 4° below the normal, the deficiency being general over the State and greatest in localities in southern and western counties. The subnormal temperatures persisted throughout the month, and were most decided during the latter part of the first and first part of the second decades.

Precipitation, September, 1917

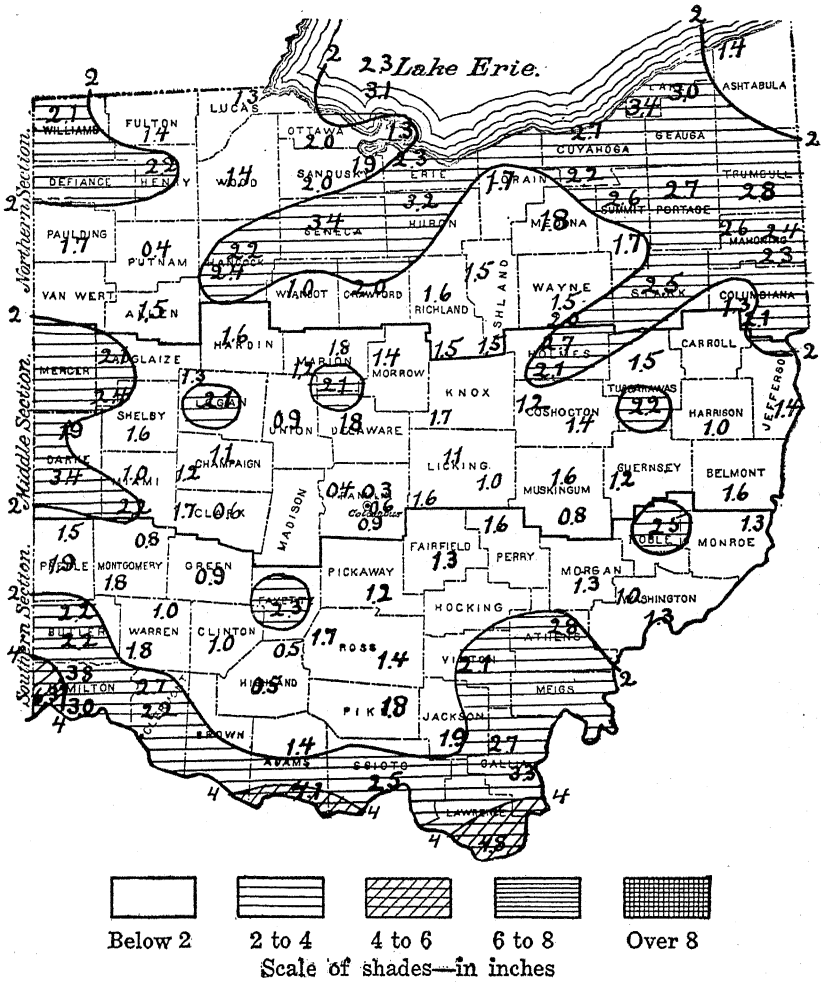

Fig. 39.—The average precipitation for the State for September was 1.86 inches, ranging from 0.31 at Ohio State University, Franklin County, to 6.33 inches at Fernbank, Hamilton County. The greatest 24-hour fall was 5.83 inches at Fernbank on the 8th. This fall was the result of a severe local thunderstorm that passed over Hamilton County, Cincinnati reporting 2.7 inches of rain on the 8th, the only other instance of excessive precipitation reported.

Precipitation departures, September, 1917

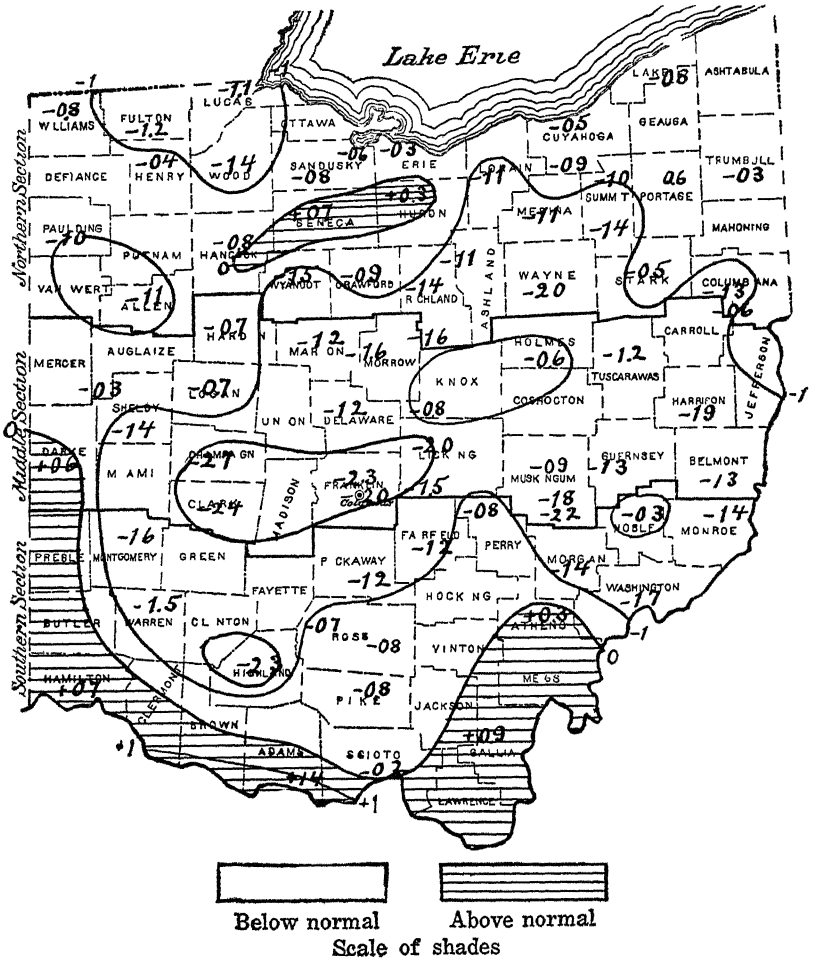

Fig. 40.—The average precipitation for the State for September was 0.95 inch below the normal The deficiency was greatest in west-central counties, and slight excesses were noted in southern counties bordering on the Ohio River.

Mean temperatures, October, 1917

Fig 41.—The mean temperature for the month was 46.7°, ranging from 43.3° at Wauseon to 51.2° at Green and Portsmouth. The highest reported temperature was 87° at Portsmouth on the 18th and the lowest was 18° at Montpelier on the 24th. The greatest daily range was 50° at Killbuck on the 30th, Peebles on the 14th and Toboso on the 15th.

Temperature departures, October, 1917

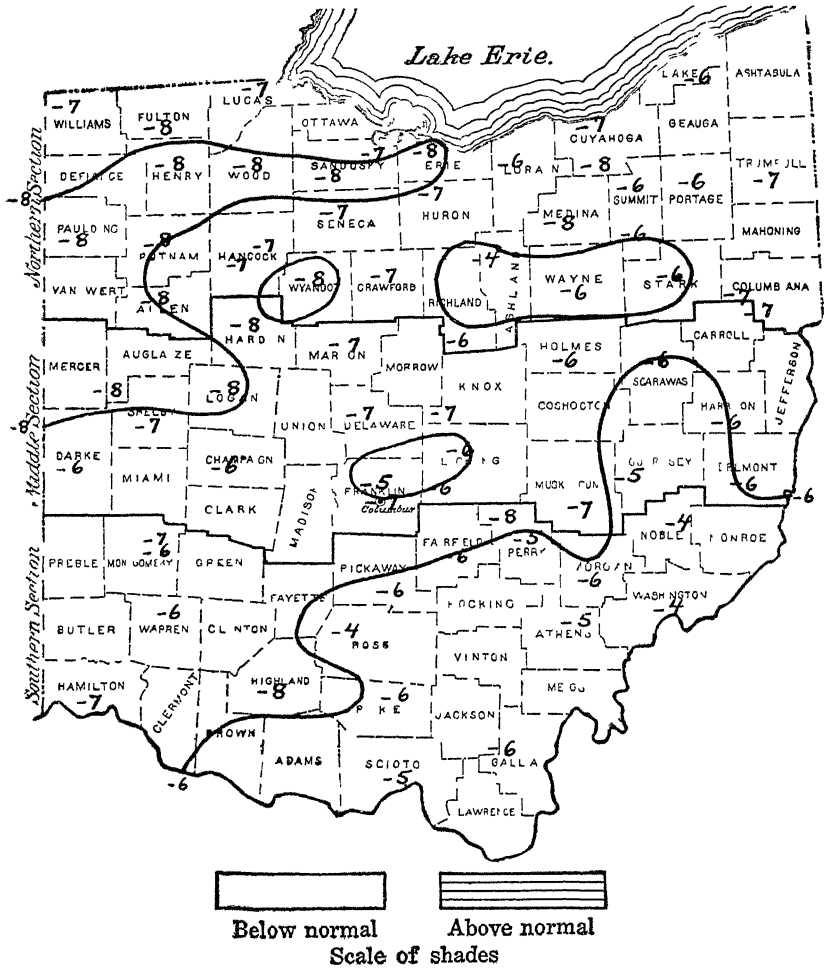

Fig. 42.—The mean temperature for the month of October was 6.6° below the normal, the deficiency being general, and greatest in northwestern counties. For the State as a whole, the temperature deficiency was, with one exception (1869) the greatest in 64 years, or since 1854.

Precipitation, October, 1917

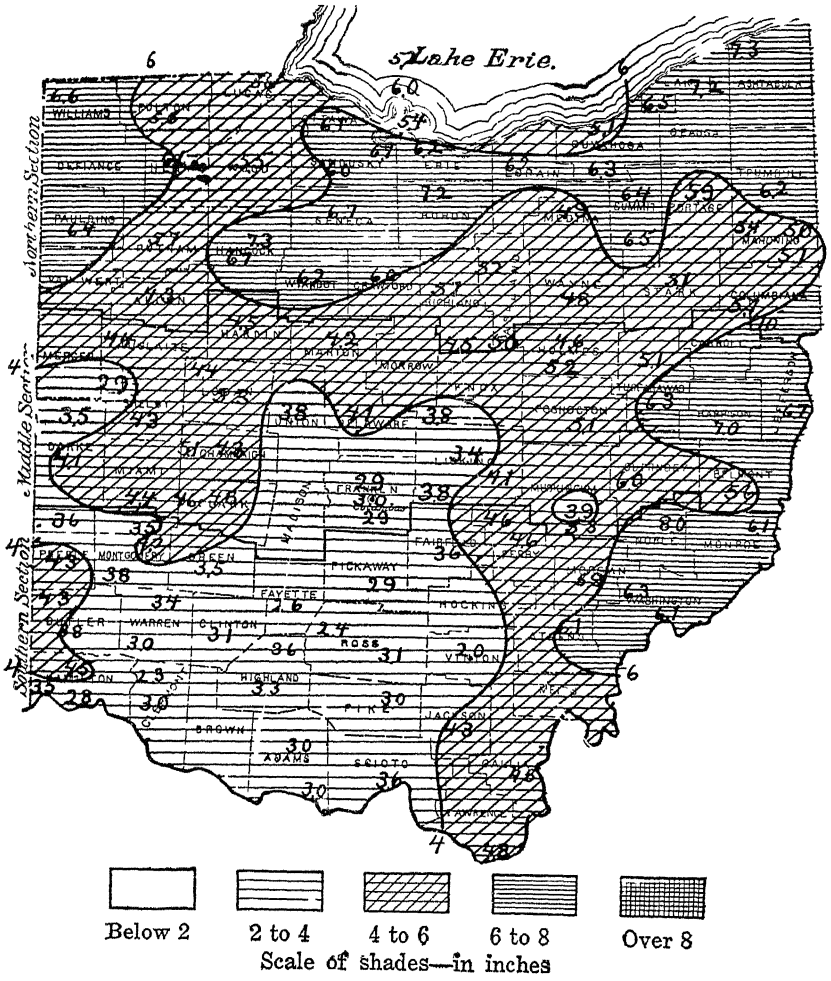

Fig. 43.—The average precipitation for the State was 4.81 inches, ranging from 2.03 inches at McArthur to 8.05 inches at Summerfield. The greatest 24-hour fall was 2.6 inches at Amesville on the 19th. Precipitation was well distributed throughout the month, falling on 13 days.

Precipitation departures, October, 1917

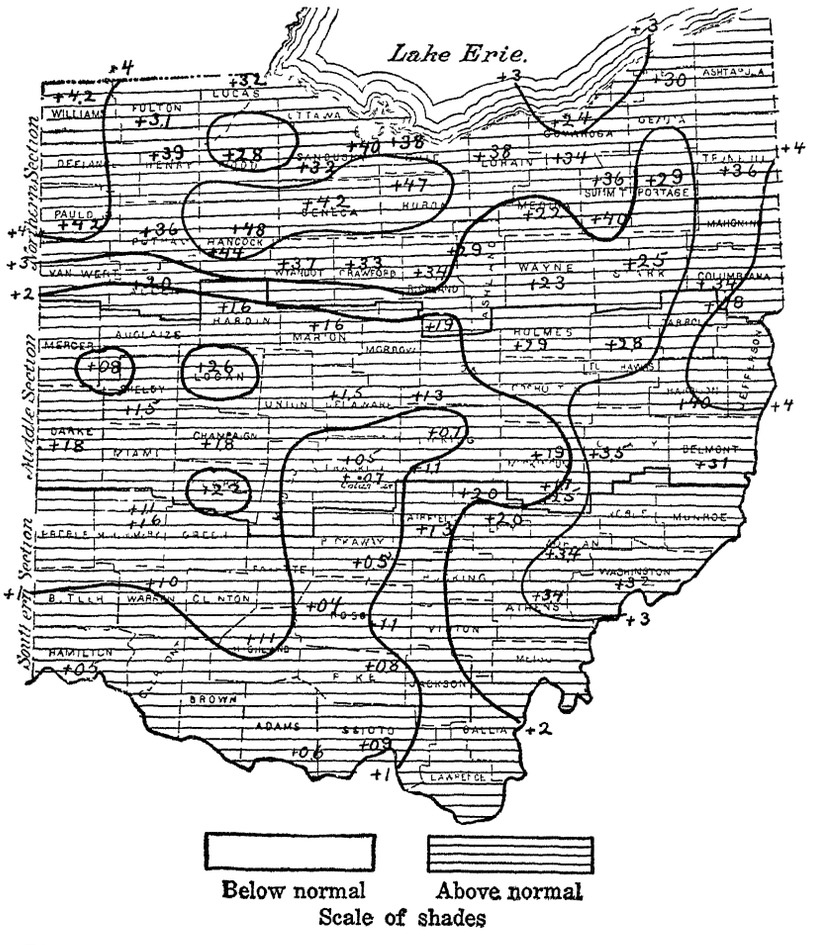

Fig. 44.—The average precipitation for the State was 2.58 inches above the normal. The excess was general, being greatest in extreme northwestern and middle-northern counties. The month was the wettest with one exception (1881) since 1854, a period of 64 years.

Snowfall, October, 1917

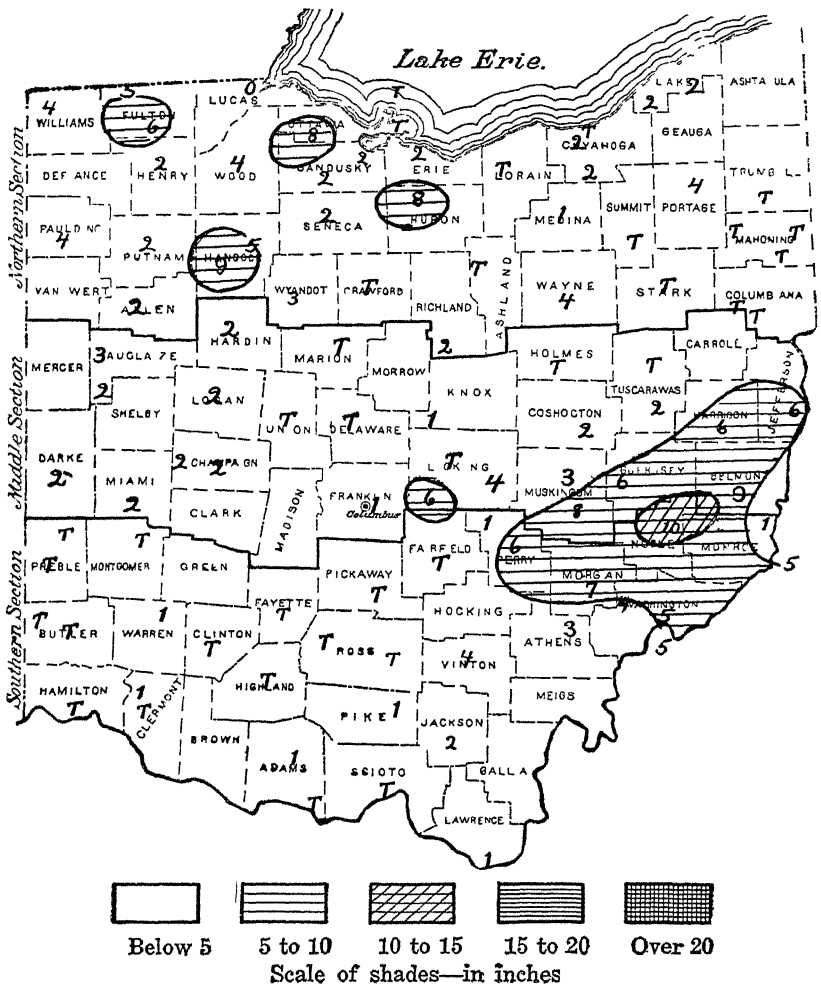

Fig. 45.—The average snowfall for the State was 2.2 inches, and was quite heavy for October, the amounts ranging from a trace to 10.5 inches at Summerfield, Noble County. The heaviest snowfall occurred in southeastern counties and in localities throughout the northern counties.

Mean temperatures, November, 1917

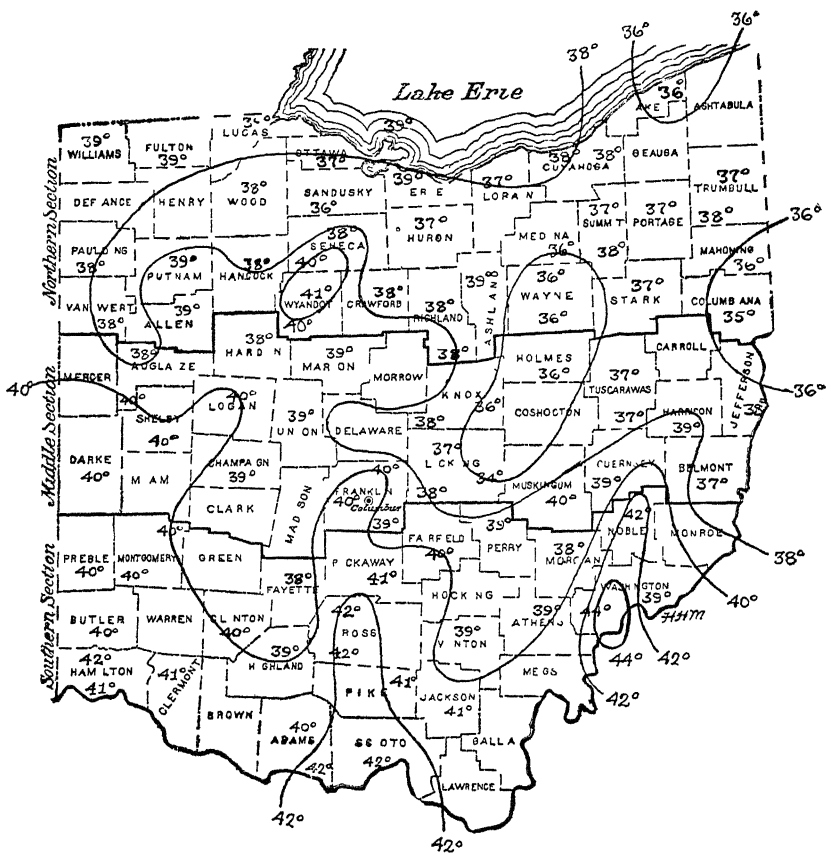

Fig. 46.—The average temperature for the State was 38 7°,ranging from 34.5° at Toboso to 42 4° at Portsmouth The highest temperature reported was 80° at Summerfield on the 10th and the lowest was 5° at Philo No. 2 on the 25th. The greatest daily range was 57° at Summerfield on the 10th.

Temperature departures, November, 1917

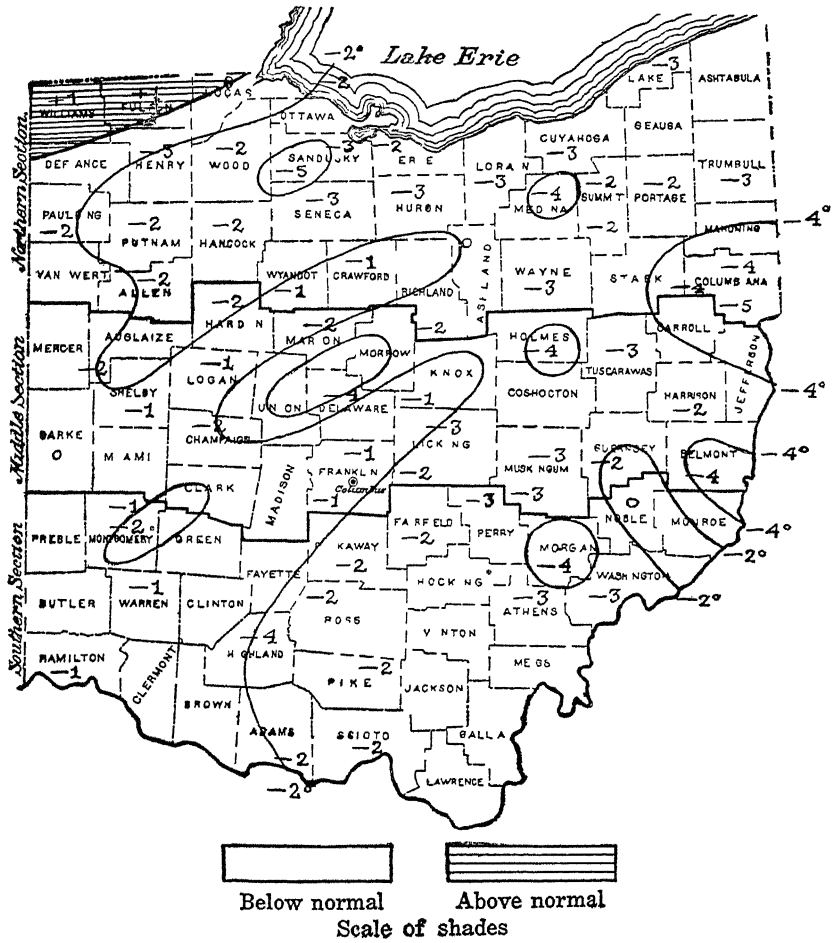

Fig. 47.—The mean temperature for the State was 2 2° below the normal. The deficiency was quite general, a slight excess being noted only in the extreme northwestern counties. The deficiency was greatest in eastern and southeastern counties.

Precipitation, November, 1917

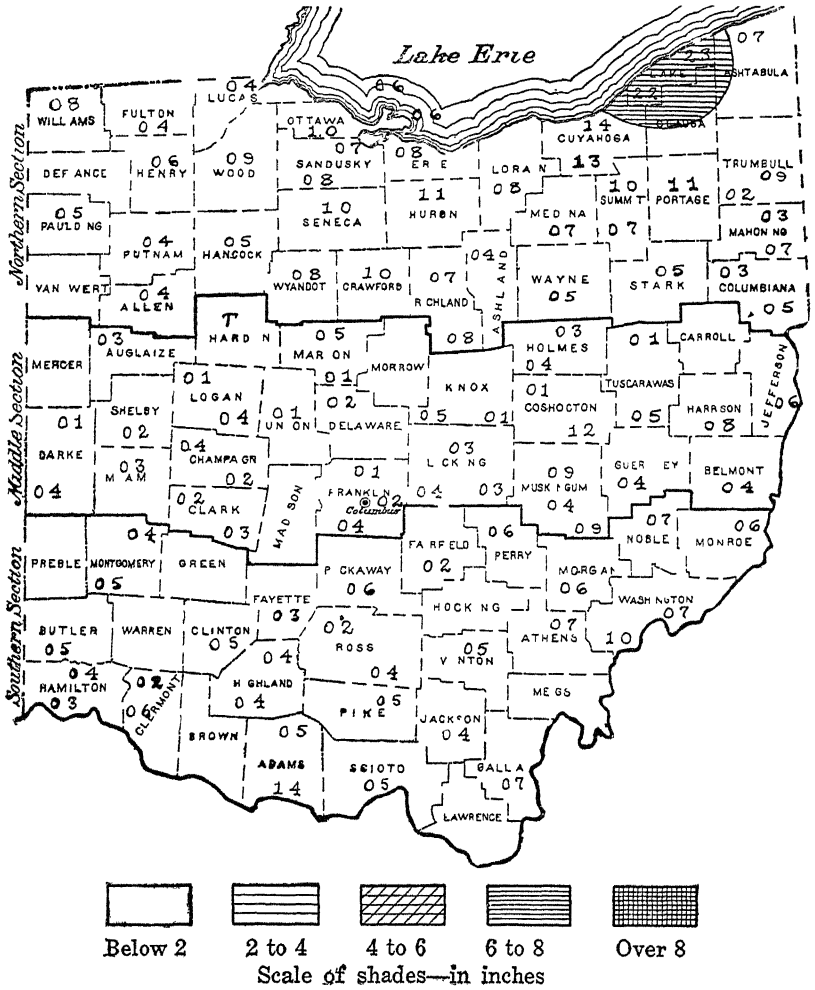

Fig. 48—The average precipitation for the State during the month of November was 0 54 inch. A pronounced drouth obtained from the 2d to the 20th, inclusive, and for many stations, the precipitation was the least on record.

Precipitation departures, November, 1917

Fig. 49.—The average precipitation for the month of November was 2.01 inches below normal. But one month since 1854, that of 1904, showed a greater deficiency. The deficiency was quite general over the State, but was appreciably greater in the middle and southern counties than in the northern.

Snowfall, November, 1917

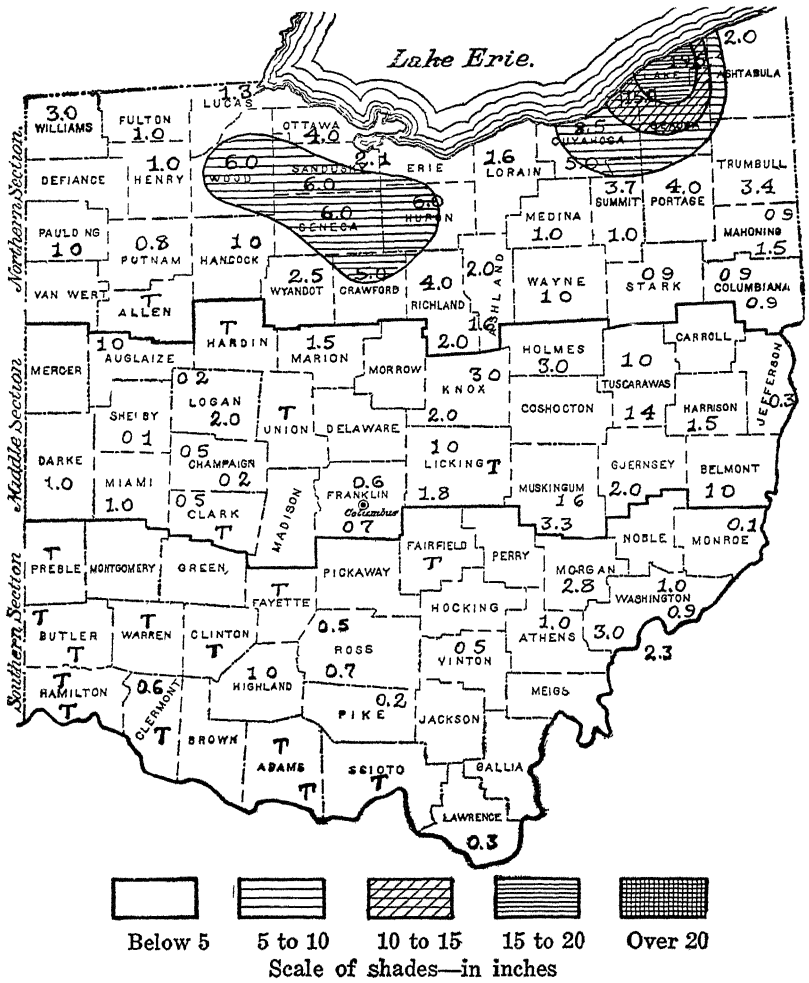

Fig. 50.—The average snowfall for the State was 1.9 inches, ranging in station amounts from a trace to 19.5 inches at Hillhouse. The snowfall was quite general throughout the State, but the fall was greatest in Lake County.

Mean temperatures, December, 1917

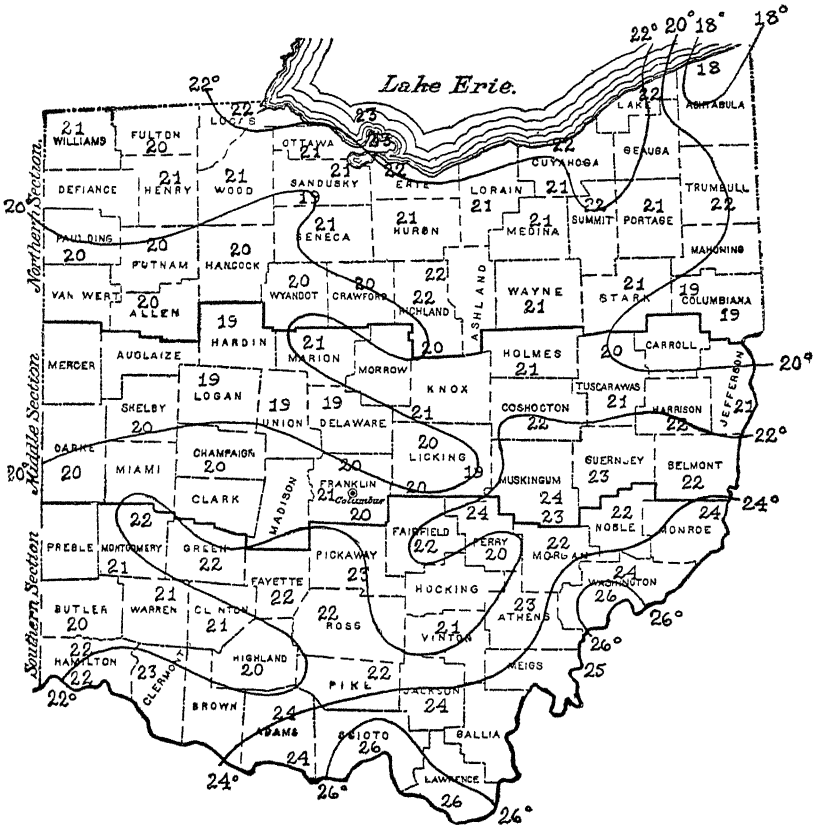

Fig. 51.—The mean temperature for the State was 21.4°, ranging from 18.5° at Geneva, Ashtabula County, to 26° at Marietta, Washington County. The highest temperature reported from any station was 60° at Peebles on the 21st and the lowest was —31° at Peebles on the 11th. The greatest daily range was 53° at Peebles and Summerfield on the 30th.

Temperature departures, December, 1917

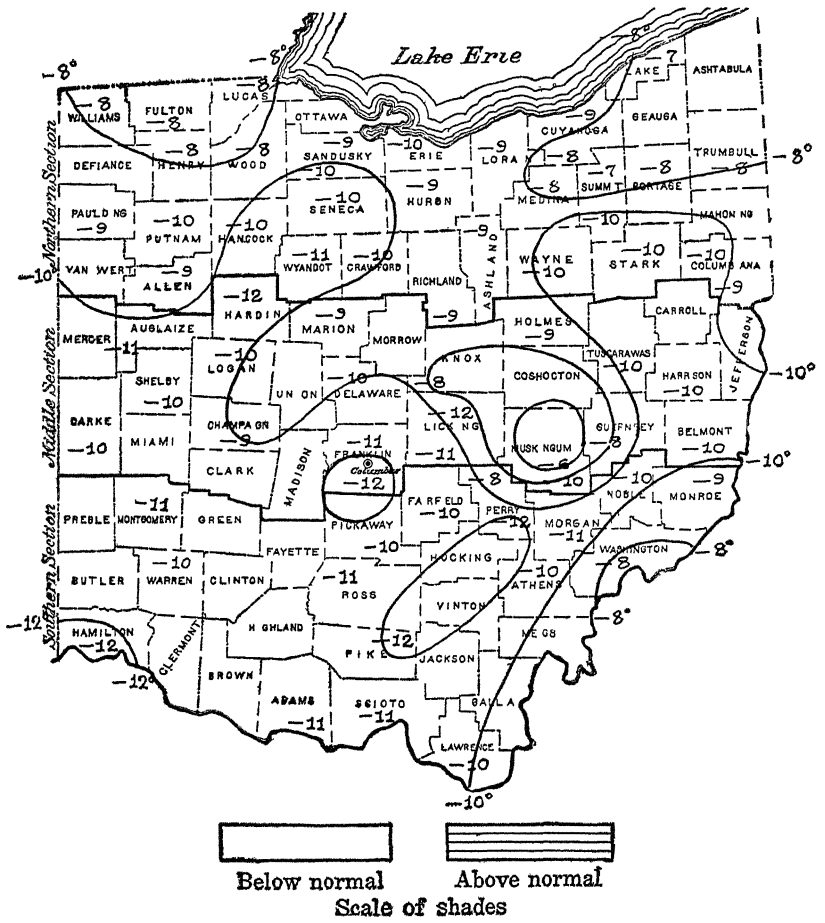

Fig. 52.—The average temperature for the month was 9.6° below the normal. The deficiency was the greatest on record, and general over the State, most pronounced in central and extreme southwestern counties. The cold spell, 6th to 17th inclusive, was the longest and severest for the last 40 Decembers.

Precipitation, December, 1917

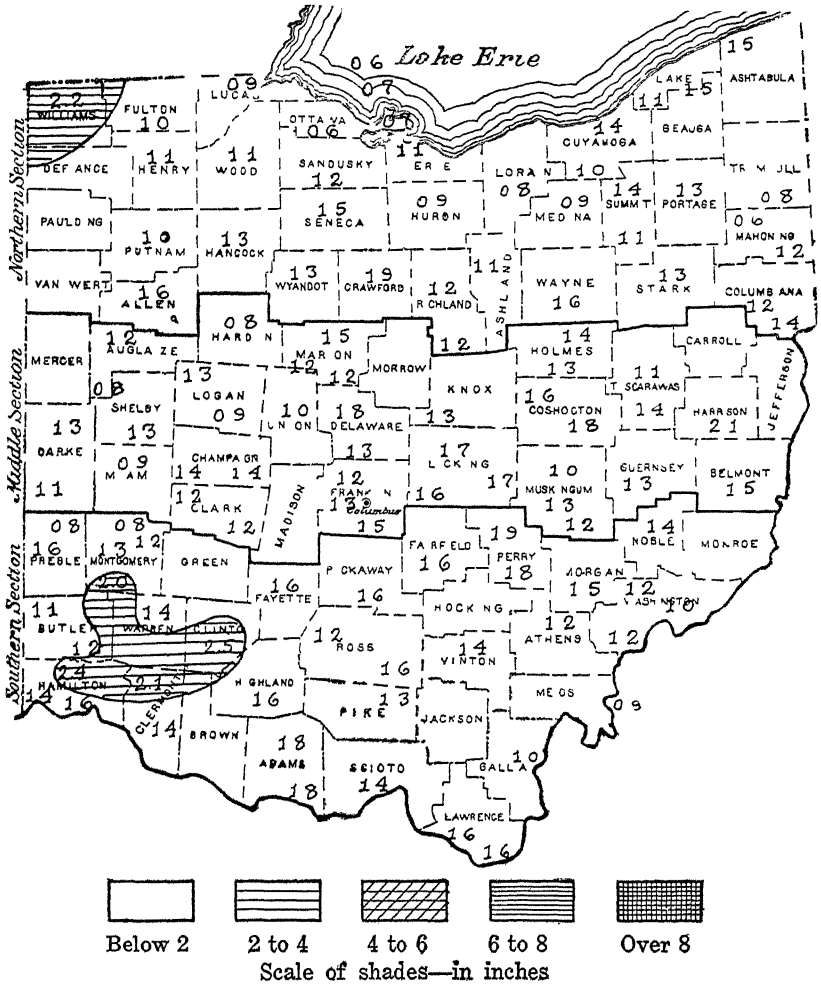

Fig. 53.—The average precipitation for the State for the month was 1.31 inches, ranging in station amounts from 0 58 inch at North Bass Island to 2.5 inches at Wilmington. The greatest 24-hour fall was 1.24 inches at Cadiz on the 8th.

Precipitation departures, December, 1917

Fig. 54.—The average precipitation for the month was 1.5 inches below the normal, and the deficiency, the greatest with one exception (1900) since 1854, was equably distributed over the State, being greatest in southeastern and other scattered localities.

Snowfall, December, 1917

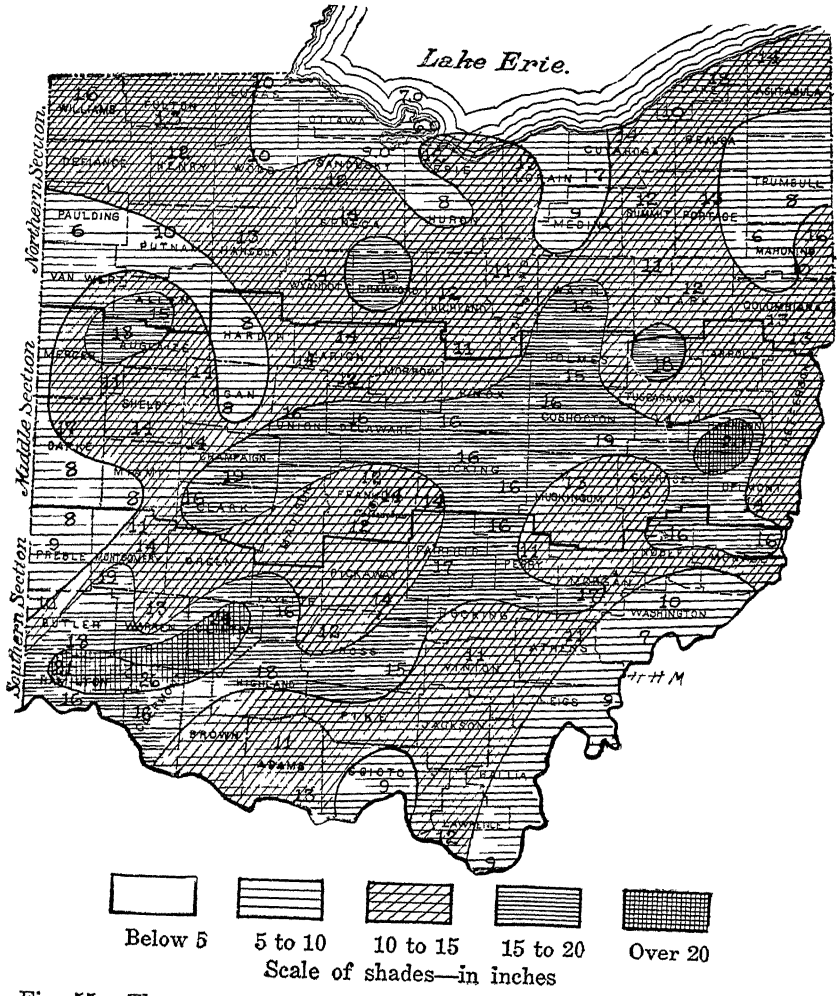

Fig. 55.—The average snowfall for the State was 13.2 inches, ranging in station amounts from 5 to 23.7 inches, the latter amount falling at Wilmington, Clinton County. The heavy snowfall afforded excellent protection to winter grains during the unprecedentedly cold weather of the month.

Annual mean temperatures, 1917

Fig. 56.—The average temperature for the northern section was 46 5°; for the middle, 47.8°; for the southern, 50°, and for the State as a whole, 47 9°. The highest annual station mean was 52.8° at Portsmouth and the lowest, 44 7° at Green Hill. The highest temperature recorded was 103° at Danbury on July 31; the lowest, —31° at Peebles on December 11th, showing an extreme range of 134° for the year.

Annual temperature departures, 1917

Fig. 57.—The average departure from the normal of the temperature for the southern section was —3°; for the middle, —3°; for the northern, —3.1°, and for the State, —3°. The deficiency was general, the latter months of the year being, as a unit, the coldest on record.

Annual precipitation, 1917

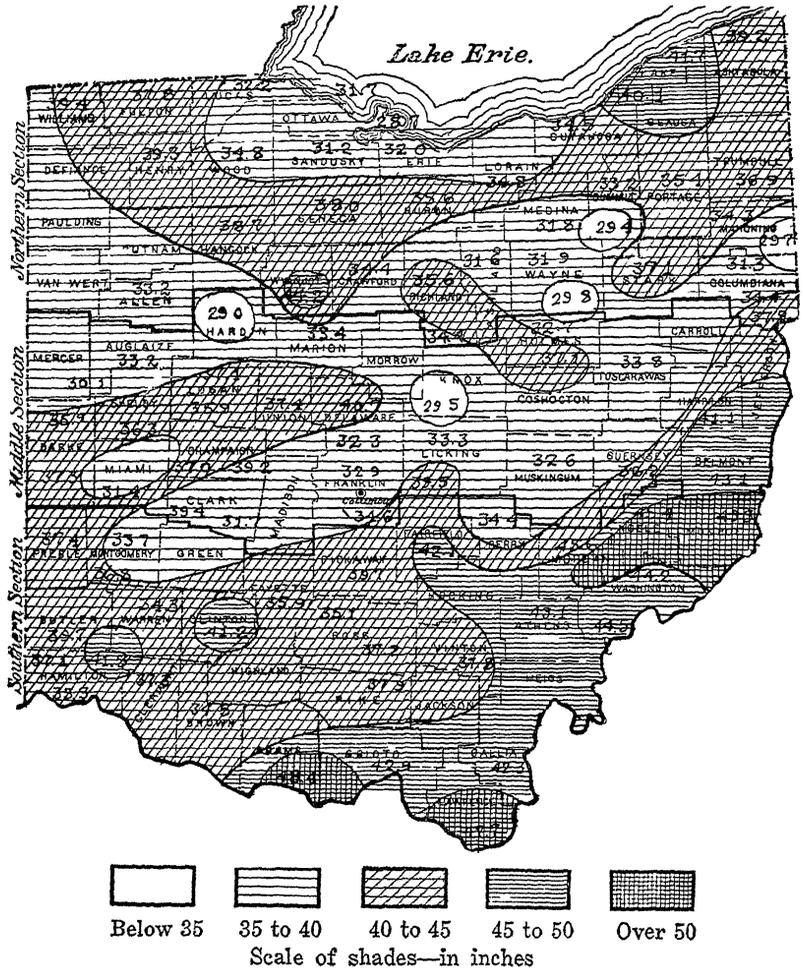

Fig. 58.—The average precipitation for the northern section of the State was 34.59 inches; for the middle, 35.16 inches; for the southern, 39.84 inches, and for the State as a whole, 36.51 inches. The greatest yearly station amount was 49.32 inches, and the least 28.69 inches, at Clarington and Danbury, respectively. The average number of rainy days was 118; of clear days, 133; of partly cloudy days, 102, and of cloudy days, 130.

Annual precipitation departures, 1917

Fig. 59.—For the State as a whole the precipitation was 1.25 inches below the normal. This deficiency was quite marked in the central counties, but in some of the southern and northern counties there was an excess.

Annual snowfall, 1917

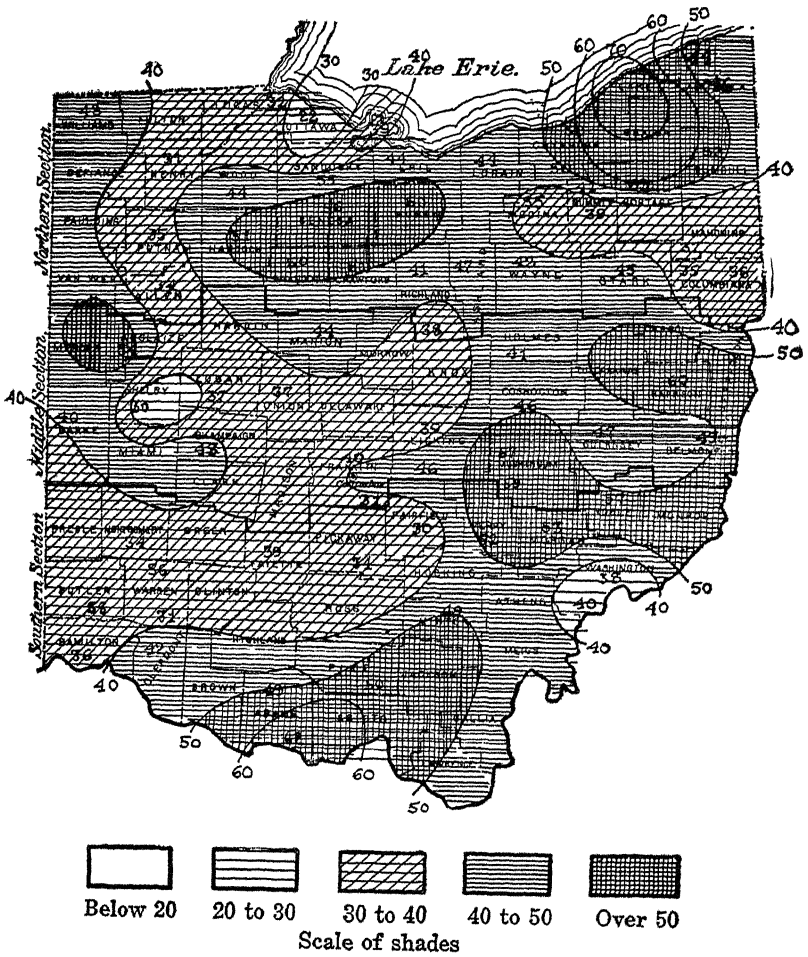

Fig. 60.—The average snowfall for the year for the State was 43.3 inches; the largest amount recorded at any one station was 75.7 inches at Hillhouse; and the largest monthly amount was 23.7 at Wilmington in December.

Dates of last killing frost in spring, 1917

Fig. 61.—The map above shows the dates on which the last killing frost occurred in the spring of 1917 at the different stations in the State.

Dates of first killing frost in autumn, 1917

Fig. 62.—The map above shows the dates on which the first killing frost occurred in the autumn of 1917 at the different stations in the State.

Length of growing season, 1917

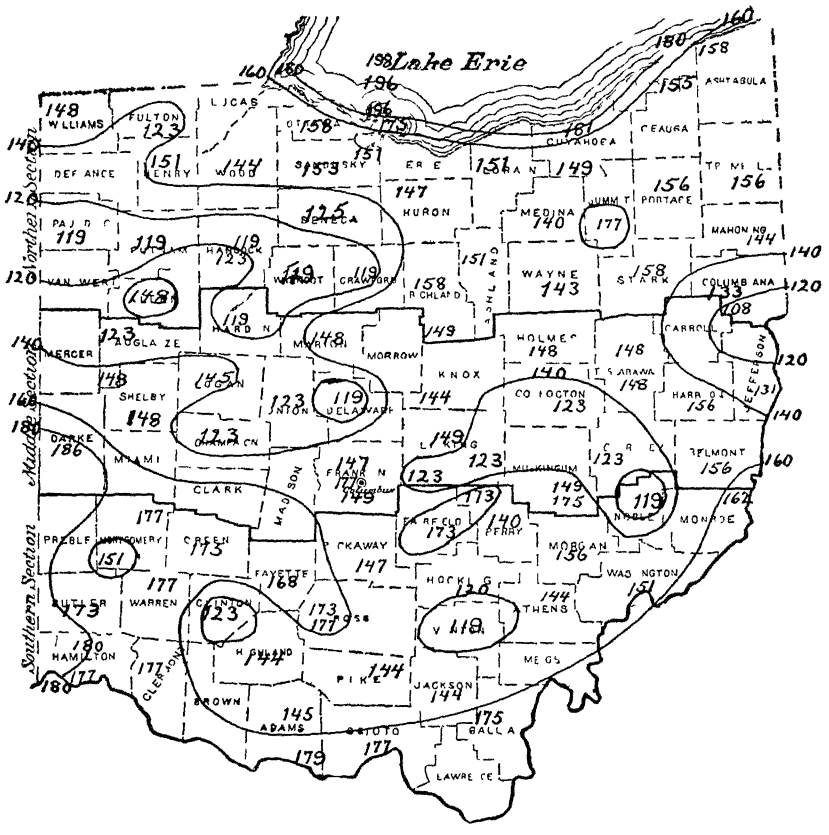

Fig. 63.—The "growing season" is the period of time between the last killing frost (or freezing temperature) in the spring and the first killing frost (or freezing temperature) in the autumn. This period was considerably shortened by adverse temperature conditions, and ranges from approximately 195 days along the Lake shores to fewer than 120 days in counties in the interior of the State.

CLIMATOLOGICAL DATA FOR OHIO, 1917.

	Temperature								Number of days				Precipitation		Wind
	Mean	Highest	Date	Lowest	Date	Range	Greatest daily range	Date	Clear	Partly cloudy	Cloudy	0.01 inch or more rain	Monthly	Monthly snowfall	
January	28.0	74	31	—16	15	90	48	27	10	8	13	11	3.78	11.0	S. W.
February	25.4	75	26	—21	12	96	48	1	8	9	11	7	1.43	6.6	S. W.
March	39.6	84	31	—9	6	93	55	31	10	7	14	12	3.65	7.7	S. W.
April	48.7	90	20	13	9	77	54	17	9	8	13	10	3.38	0.7	N. W.
May	54.1	93	17	26	*3	67	46	18	9	10	12	13	4.18	T	N. W.
June	66.9	100	26	33	17	67	45	18	11	11	8	14	4.99	0	S. W.
July	72.3	103	31	43	5	60	44	28	14	10	7	10	3.88	0	S. W.
August	71.3	101	1	38	26	63	47	26	15	9	7	9	2.70	0	S. W.
September	61.9	93	2	28	25	65	50	26	18	7	5	6	1.86	0	N. E.
October	46.7	87	18	18	24	69	50	*30	7	9	15	13	4.81	2.2	S. W.
November	38.7	80	10	5	25	75	54	10	13	6	11	5	0.54	1.9	S. W.
December	21.4	60	21	—31	11	91	53	30	9	8	14	8	1.31	13.2	S. W.
Total or average	47.9	103	July 31	—31	Dec. 11	134	55	Mar. 31	133	102	130	118	36.51	43.3	S. W.

*And other dates.

METEOROLOGICAL SUMMARY

EXPLANATION OF TABLES

The following tables contain statistics of temperature, rainfall, etc., for the year, and are compiled from data obtained from daily observations. T stands for "trace"—less than 0.01 inch of rainfall. Temperature is given in degrees Fahrenheit.

Table I shows the daily rainfall at the Experiment Station at Wooster during the year in inches and hundredths.

Table II shows the daily mean temperature for each day of 1917 and the monthly mean temperature with the 30-year average.

Table III gives the monthly mean temperature at the Station with the 30-year average for the same.

Table IV gives the monthly mean rainfall at the Station with the 30-year average for the same.

Table V gives the monthly mean temperature for the State for 1917 with the 30-year average.

Table VI gives the monthly mean rainfall for 1917 with the 30-year average for the State.

Table VII gives the monthly mean temperature and rainfall for the Station and State for 1917 with the 30-year average.

Table VIII contains the mean temperature, the highest and lowest temperatures with the range of temperature for each month; the number of clear, partly cloudy and cloudy days; the rainfall, snowfall and prevailing direction of wind, for both the Station and State for 1917.

Table IX contains the principal points of interest on temperature, rainfall, and state of weather at the Station and for the State during the year, and a grand summary for 30 years.

Table X gives the date of the last killing frost in the spring, and the first killing frost in autumn, also the number of times the mercury fell below zero in each winter month since 1894.

Table XI gives the highest and lowest temperature for each month during the last 30 years for both the Station and State.

Table XII gives the total and average precipitation at the different district and county experimen farms.

Table XIII gives the monthly mean temperature at district experiment farms.

Table XIV gives the daily evaporation and wind movement at the Experiment Station at Wooster for 1916 and 1917.

TABLE I.—DAILY RAINFALL AND MELTED SNOW FOR 1917 AT THE EXPERIMENT STATION

Date	January	February	March	April	May	June	July	August	September	October	November	December	Date
1	.....	0.05	.....	0.39	0.15	T	T	.....	0.39	0.10	T	T	1
2	.....	T	.....	.22	.....	T	.....	.....	.32	.....	.....	.....	2
3	0.35	T	0.05	.....	.....	.....	.....	.....	.....	.10	.....	.....	3
4	.....	.....	.....	.....	.86	.....	.....	.....	.....	.55	.....	.....	4
5	.76	.20	.40	.41	.08	0.47	.....	.....	T	.11	.....	T	5
6	.26	.....	T	.61	T	1.24	.....	T	.21	.17	.....	0.20	6
7	.....	T	.....	.02	.01	.50	0.72	.....	.08	.....	.....	.....	7
8	.....	.....	.22	T	.....	.27	T	0.43	.14	T	.....	.80	8
9	.....	.20	T	.....	.23	.07	.....	.07	.....	.....	.....	.....	9
10	.23	.10	.....	.....	.....	.....	.08	.....	.....	T	.....	.....	10
11	.02	.....	.45	.....	T	.....	.08	.....	.....	.....	.....	.....	11
12	T	.....	.75	.....	.....	.....	.26	.....	.....	.34	0.05	.....	12
13	.10	.....	.05	.....	.....	.....	.14	.44	.....	.....	.....	.20	13
14	.50	.....	.40	.....	.....	.49	.09	.65	.....	.....	.....	T	14
15	.....	.....	.....	.....	.....	.34	.08	.....	.....	.06	.....	.....	15
16	.05	.02	.....	.....	.....	.....	T	.....	.....	.....	.....	.20	16
17	.....	.07	.02	.....	.....	.....	.62	.....	.....	.....	.....	.....	17
18	.10	.....	.02	T	.12	.....	.03	.....	....	T	.....	.....	18
19	T	.....	.05	.04	.35	.....	.....	.....	.....	.79	.....	.....	19
20	.....	.25	.....	.....	.36	.03	.....	....	T	.....	.....	.....	20
21	.10	.....	.07	.....	.02	.....	.....	.06	T	.....	.08	T	21
22	.60	.05	.....	.....	.17	.....	.....	.50	.....	.....	.20	T	22
23	.....	.20	.....	T	.08	.28	.....	.04	.....	.51	.02	.02	23
24	.....	.16	.66	T	.....	.03	.....	.03	.....	.86	.02	T	24
25	.....	.....	.....	.22	.....	.....	.....	.03	.....	.02	.05	T	25
26	.02	.....	.....	.03	.01	.....	.....	.....	.....	.10	T	.....	26
27	T	.....	.06	.....	T	.14	.10	.....	.....	.25	.02	.....	27
28	.01	.....	.15	.....	.73	.62	.....	.....	.32	.03	T	.02	28
29	.....	.....	.25	.02	.07	.36	.....	.02	.....	.70	.....	.20	29
30	.02	.....	T	.04	.....	.....	.....	.17	.02	.07	.....	.....	30
31	.....	.....	.06	.....	.70	.....	.....	.....	.....	T	.....	.....	31
Total	3.12	1.30	3.66	2.00	3.94	4.84	2.20	2.44	1.48	4.76	.44	1.64	
Average	.101	.046	.118	.067	.127	.161	.071	.079	.049	.154	.015	.053	

TABLE II—MEAN TEMPERATURE FOR EACH DAY OF 1917 AT THE EXPERIMENT STATION—Degrees

Date	January	February	March	April	May	June	July	August	September	October	November	December	Date
1.	28.0	25.5	28.5	60.5	51.0	65.0	74.0	83.5	74.0	49.5	32.0	37.0	1
2.....	32.0	7.5	27.0	48.0	47.0	67.0	72.5	80.0	73.0	49.0	30.5	33.0	2
3.....	31.5	10.5	29.5	40 5	42.5	63.5	64.5	67.5	68.5	52.5	40.5	36.5	3
4.....	40.0	12.0	29.0	48.5	41.5	60.0	60.5	68.5	63.5	54.5	38.5	34.5	4
5.....	40.5	0.0	17.0	50 0	40.5	66.0	62.5	78.0	55.0	54.0	42.0	29.5	5
6.....	30.0	11.0	18.5	38.5	40 5	72.0	69.5	76.0	65.0	44.0	47.0	27.0	6
7.....	32.0	21.0	29.0	38.0	43.5	68.5	73.5	75.0	54.5	42.5	42.0	21.0	7
8.....	34.0	33.0	32.5	32.5	46.0	66.0	69.5	75.5	61.5	47.5	39.0	23.0	8
9..... ..	33.5	8.0	36.0	31.0	45.5	62.0	70.0	64.0	60.5	38.5	41.0	7.0	9
10.....	36.0	6.5	36.5	37.5	45.0	63.5	71.0	63.5	55.0	41.5	44.5	—2.0	10
11.....	13.5	5.0	48.0	49.0	45.0	63.5	61.5	69.0	49.0	40.0	45.0	3.0	11
12.....	16.0	—4.5	32.5	53.5	43.5	65.5	65.5	70.0	53.0	41.0	40.5	7.5	12
13.....	18.5	4.5	32.0	36.0	46.0	70.5	64.5	71.0	57.5	40.0	41.5	9.5	13
14....	6.0	18.0	32.5	28.5	48.0	67.5	68.5	73.0	62.0	43.5	39.5	12.5	14
15.....	1.5	15.5	32.5	36.5	55.5	54.5	70.0	73.0	67.0	58.5	33.5	3.0	15
16.....	12.5	19.5	40.0	40.0	62.5	52.5	69.0	71.0	63.0	50.0	39.0	17.0	16
17.....	13.0	37.0	34.5	49.0	64.5	54.5	70.5	67.5	59.5	49.0	43.5	14.5	17
18.....	18.5	26.5	28.0	64.5	69.0	65.5	70.0	65.5	58.0	63.5	46.5	18.5	18
19.....	17.0	35.5	26.0	66.0	68.0	71.0	71.0	69.5	59.0	51.5	33.0	36.0	19
20.....	23.5	29.5	37.5	71.0	68.0	69.0	72.5	73.0	63.5	39.5	36.0	40.5	20
21.....	34.0	31.0	47.0	64.5	57.0	65.0	74.0	75.5	62.5	40.0	38.5	37.0	21
22.....	19.0	32.5	44.0	56.0	65.0	72.0	74.5	67.5	54.5	41.5	39.5	27.0	22
23.....	25.0	33.0	44.5	56.0	48.5	71.0	76.0	71.5	57.0	39.0	29.0	26.5	23
24....	24.5	32.0	44.0	47.5	48.5	70.0	79.0	70.0	57.5	37.0	22.5	41.0	24
25.....	24.0	40.0	49.5	51.0	49.0	65.5	78.5	61.0	56.0	40.0	20.5	31.5	25
26..... ...	14.0	42.5	55.0	49.5	50.5	76.0	79.5	68.5	58.0	45.0	22.5	17.5	26
27.....	26.5	32.0	42.5	43.0	64.0	73.0	78.5	76.5	62.5	43.5	22.5	20.0	27
28.....	30.0	32.5	40.0	44.5	55.5	69.0	69.5	72.5	57.5	42.0	32.5	20.0	28
29.....	36.5	.....	35.5	47.5	56.0	67.5	79.0	65.5	59.0	55.0	32.0	7.0	29
30.....	39.0	.....	43.0	53.5	56.5	72.0	83.0	63.5	56.0	42.0	40.0	—4.0	30
31....	41.5	.....	52.5	.....	69.0	.....	85.0	65.5	.....	31.5	.....	9.5	31
Monthly mean.	25.6	21.3	36.3	47.7	52.7	66.3	71.8	70.7	60.1	45.4	36.5	20.7	
30year average	26.7	28.0	35.6	48.3	56.5	67.2	69.1	67.3	63.8	49.5	40.0	29.0	

TABLE III.—MONTHLY MEAN TEMPERATURE FOR 30 YEARS AT WOOSTER—Degrees

Date	January	February	March	April	May	June	July	August	September	October	November	December	Year	Date
1888.....	23.0	28.8	31.7	46.3	57.7	69.8	70.1	67.8	57.1	44.9	40.7	31.4	47.4	1888
1889.....	31.1	22.9	38.7	47.1	57.8	64.5	70.0	66.0	60.8	45.3	39.3	40.7	48.6	1889
1890.....	36.0	36.6	30.9	48.4	56.0	69.8	70.5	65.8	59.6	50.0	41.3	28.8	49.5	1890
1891.....	30.0	34.0	32.0	49.0	52.0	68.0	68.0	71.0	68.0	49.0	38.0	37.0	49.7	1891
1892.....	22.0	33.0	33.0	47.0	57.0	70.0	70.0	69.0	61.0	49.0	38.0	28.0	48.0	1892
1893.....	18.0	28.0	38.8	50.1	57.6	69.3	72.0	67.9	63.2	52.3	37.7	30.9	48.7	1893
1894.....	32.8	26.7	43.5	50.5	57.5	67.9	71.4	69.2	66.1	52.3	36.5	32.9	50.6	1894
1895.....	21.9	17.9	32.4	49.5	59.4	69.9	68.6	70.9	66.5	44.2	40.4	32.8	47.8	1895
1896.....	27.9	29.2	29.8	54.6	64.5	65.6	70.2	68.5	60.6	45.8	44.4	30.6	49.3	1896
1897.....	24.0	30.0	39.3	47.2	53.4	64.3	73.2	67.0	66.7	55.9	40.7	31.8	49.4	1897
1898.....	31.6	27.2	43.3	45.3	58.2	68.7	74.5	71.1	66.2	52.6	38.4	27.9	50.4	1898
1899.....	26.6	21.3	35.0	52.1	60.0	69.4	70.0	71.0	61.6	55.0	43.2	29.0	49.5	1899
1900.....	30.2	25.0	31.8	47.8	61.5	68.5	72.6	74.1	67.1	58.9	40.6	30.7	50.7	1900
1901.....	28.3	20.0	39.1	45.2	57.9	69.1	75.9	71.6	63.3	51.7	36.6	26.1	48.7	1901
1902.....	26.3	21.4	41.2	46.2	61.2	65.6	73.0	66.4	62.7	53.9	47.3	28.7	49.5	1902
1903.....	24.4	29.0	45.7	48.0	62.2	63.0	71.8	68.8	64.4	58.2	36.8	21.7	49.1	1903
1904.....	18.6	20.5	37.6	42.8	59.4	67.0	69.8	66.7	64.2	50.4	39.6	28.1	47.1	1904
1905.....	22.6	19.8	41.2	46.8	59.2	68.0	71.6	70.0	63.8	51.0	38.3	33.1	48.8	1905
1906.....	35.9	25.8	30.2	51.9	59.9	68.8	71.0	74.2	67.7	51.4	40.4	31.2	50.7	1906
1907..... ..	30.8	24.6	44.9	41.7	52.8	64.6	69.9	68.6	65.0	47.4	38.5	32.1	48.4	1907
1908.....	28.7	26.8	43.1	50.1	62.2	68.1	72.4	69.0	66.4	53.0	41.0	31.7	51.0	1908
1909.....	31.7	33.6	35.9	48.4	57.9	69.3	69.6	70.4	62.2	47.8	48.3	25.2	50.0	1909
1910..	26.7	23.8	47.2	50.2	54.7	64.3	72.6	70.9	65.3	54.9	34.8	24.4	49.2	1910
1911.....	31.3	33.8	35.0	46.5	63.5	68.9	71.7	70.6	65.2	51.8	36.7	34.7	50.8	1911
1912.....	16.6	20.5	30.3	50.5	61.1	64.6	71.6	67.1	65.6	52.4	41.0	33.1	47.8	1912
1913.....	34.2	25.1	38.5	48.9	58.0	67.4	72.4	71.5	62.5	52.2	42.4	33.7	50.6	1913
1914.....	31.9	20.4	34.5	48.4	59.8	68.4	71.0	71.5	62.2	55.8	40.9	25.9	49.2	1914
1915.....	24.4	33.2	31.2	53.2	55.0	64.8	69.2	66.1	65.6	53.4	42.4	28.6	48.9	1915
1916.....	35.3	24.7	32.0	46.8	60.2	62.9	74.6	72.2	62.1	50.1	40.4	26.2	48.9	1916
1917.....	25.6	21.3	36.3	47.7	52.7	66.3	71.8	70.7	60.1	45.4	36.5	20.7	46.3	1917
Average...	26.7	28.0	35.6	48.3	56.5	67.2	69.1	67.3	63.8	49.5	40.0	29.0	47.6	

TABLE IV.—MONTHLY RAINFALL FOR 30 YEARS AT WOOSTER—Inches

Date	January	February	March	April	May	June	July	August	September	October	November	December	Annual	Date
1888.....	3.34	2.43	3.34	2.48	3.82	2.31	4.54	4.35	1.92	3.18	4.95	1.39	38.05	1888
1889.....	4.33	2.42	2.13	1.58	2.97	4.86	6.73	1.98	4.05	1.36	3.53	3.93	39.87	1889
1890.....	4.71	6.20	4.37	3.10	6.37	6.92	2.67	4.66	5.13	7.45	2.62	1.74	53.94	1890
1891.....	2.91	4.83	3.71	1.66	2.24	7.13	3.24	1.85	.93	1.33	5.73	2.92	38.48	1891
1892.....	2.67	2.67	3.38	2.44	7.69	7.89	4.73	2.69	3.20	.37	2.06	2.74	41.53	1892
1893.....	4.01	6.33	1.89	5.66	6.28	2.51	1.38	1.53	1.85	5.15	2.49	1.50	40.58	1893
1894.....	2.19	3.37	2.36	1.74	4.41	2.23	1.38	.76	4.25	2.53	2.41	3.15	30.78	1894
1895.....	3.97	.41	1.98	1.69	1.38	4.20	2.19	2.30	3.92	1.15	4.21	3.51	30.91	1895
1896.....	1.73	2.27	3.67	3.34	3.41	3.98	8.15	1.96	5.16	.71	1.78	3.04	39.10	1896
1897.....	3.42	2.64	2.81	2.75	4.97	2.98	3.89	3.86	.29	.89	5.76	2.50	36.76	1897
1898.....	4.10	2.27	6.44	2.56	4.60	2.70	6.79	5.53	2.15	4.28	4.14	2.29	47.85	1898
1899.....	3.29	1.64	3.95	1.28	4.42	1.95	3.73	.53	5.56	2.21	1.59	2.78	32.93	1899
1900.....	2.78	2.74	2.25	1.70	2.23	3.71	5.65	5.97	2.19	2.10	4.30	.99	36.61	1900
1901.....	1.58	1.20	3.09	2.46	4.32	4.82	3.32	3.58	5.64	.79	1.62	3.47	35.89	1901
1902.....	.63	.83	2.99	1.55	2.57	5.55	5.26	1.87	3.49	1.52	2.62	4.07	32.95	1902
1903.....	3.54	3.69	3.29	4.55	1.59	3.69	4.61	6.58	2.07	2.63	2.25	1.95	40.44	1903
1904.....	5.27	3.90	6.22	6.59	4.45	1.67	4.93	2.03	2.27	.87	.40	2.68	41.28	1904
1905.....	1.83	1.36	2.61	2.51	5.97	7.50	5.14	4.47	5.10	2.32	2.04	2.08	42.93	1905
1906.....	1.93	1.06	3.57	2.27	2.98	3.81	4.93	7.38	5.16	3.55	2.39	3.79	42.82	1906
1907.....	6.92	1.09	5.80	2.69	3.48	3.81	3.96	2.04	3.13	2.34	1.33	3.41	40.00	1907
1908.....	1.96	3.89	5.02	3.64	4.56	2.17	3.44	3.17	.73	1.22	1.09	3.05	33.94	1908
1909.....	2.95	5.22	3.02	3.92	4.06	6.44	4.05	5.21	1.73	2.16	2.91	2.55	44.22	1909
1910.....	5.29	4.41	.54	3.22	4.87	2.57	1.12	.95	2.59	5.24	2.36	2.29	35.45	1910
1911.....	4.13	2.25	3.26	3.71	2.45	3.78	3.36	5.19	6.53	5.45	2.50	4.54	47.15	1911
1912.....	2.30	1.58	3.77	5.58	5.65	2.21	7.46	7.32	4.41	2.18	1.79	2.35	46.70	1912
1913.....	7.86	2.43	11.84	3.66	3.04	.97	4.07	4.75	3.70	3.17	3.77	1.92	51.18	1913
1914.....	1.64	1.95	2.37	4.33	2.98	6.33	1.23	5.00	2.87	3.33	1.68	3.67	37.38	1914
1915.....	2.32	2.04	1.17	1.41	2.80	6.32	8.35	3.93	4.90	2.85	2.65	3.32	42.06	1915
1916.....	4.98	1.73	4.72	2.92	2.95	5.05	2.21	2.26	1.07	2.03	2.58	2.43	34.93	1916
1917.....	3.12	1.30	3.66	2.00	3.94	4.84	2.20	2.44	1.48	4.76	.44	1.64	31.82	1917
Average...	3.28	2.86	3.52	2.96	3.79	4.16	4.02	3.43	3.25	2.55	2.67	2.64	39.62	

TABLE V—MONTHLY MEAN TEMPERATURE FOR 30 YEARS FOR THE STATE Degrees

Date	January	February	March	April	May	June	July	August	September	October	November	December	Year	Date
1888.....	24.3	30.5	34.2	49.2	58.8	70.4	72.1	70.4	60.3	47.9	42.9	33.3	49.5	1888
1889.....	33.3	25.8	40.2	49.9	60.2	66.7	72.5	69.1	62.9	47.9	41.0	43.8	51.1	1889
1890.....	38.8	39.4	34.5	51.3	59.2	73.3	73.0	69.8	62.1	52.7	42.2	31.2	52.2	1890
1891.....	33.0	36.0	35.0	52.0	58.0	71.0	69.0	70.0	67.0	51.0	40.0	39.0	51.8	1891
1892.....	24.0	35.0	35.0	49.0	56.0	73.0	73.0	71.0	64.0	52.0	38.0	29.0	50.2	1892
1893.....	18.0	29.0	38.0	50.2	58.3	70.6	74.5	70.7	65.2	53.7	39.3	32.7	50.0	1893
1894.....	33.7	28.9	45.1	50.6	60.0	71.3	74.3	71.2	67.8	53.9	37.5	33.9	52.4	1894
1895.....	23.4	19.6	35.5	51.7	61.1	72.0	71.6	73.5	66.0	46.9	41.9	33.9	50.0	1895
1896	29.4	30.5	32.4	56.9	67.9	69.5	73.2	71.8	62.7	49.0	45.1	32.9	51.8	1896
1897.....	25.5	32.4	41.5	49.3	56.3	68.1	75.5	69.4	66.9	58.1	42.2	32.8	51.5	1897
1898.....	32.4	30.0	45.0	47.2	61.0	71.9	76.0	73.5	67.8	54.1	38.8	28.8	52.2	1898
1899.....	27.8	21.6	36.9	53.3	63.3	71.5	74.1	73.7	64.1	57.4	43.9	30.2	51.5	1899
1900.... .	31.1	26.0	32.9	50.1	62.9	69 8	74.1	76.3	69.3	60.5	41.6	31.6	52.2	1900
1901.....	29.2	21.1	39.5	46.7	59.0	70.9	78.1	73.1	64.8	53.8	37.7	27.9	50 2	1901
1902.....	27.3	23.3	41.9	48.2	62.6	66.9	74.0	68.9	63.6	54.6	48.5	29.4	50.7	1902
1903.....	27.1	29.9	46.7	49.9	63.9	64.4	72.9	70.7	65.6	54.0	37.2	23.4	50.5	1903
1904.....	20.7	22.9	39.7	44.4	60.7	68.4	71.4	68.8	65.5	52.2	40.5	28.0	48.6	1904
1905.....	22.7	20.8	42.7	48.5	60.7	69.2	73.0	71.7	65.3	52.6	39.6	32.9	50.0	1905
1906.....	35.7	27.3	31.3	52.1	61.3	69.8	72.1	74 6	68.9	52.7	41.1	32.3	51.6	1906
1907.....	32.2	26.0	45.9	42.5	54.5	65.6	72.6	69.5	65.5	48.8	39.1	33.0	49.6	1907
1908.....	29.1	27:7	43.4	51.0	62.8	69.2	73.9	71.2	68.0	54.1	41.7	33.1	52.1	1908
1909.....	32.2	34.7	37.3	49.1	58.7	70.1	70.7	71.9	63.2	48.8	48.9	25.4	50.9	1909
1910.....	27.6	25.5	48.2	51.5	56.0	65.9	73.8	71.4	66.3	56.7	36.3	25.5	50.4	1910
1911.....	32.8	34.5	37.4	47.7	66.3	70.9	74.0	72.5	67.5	53.3	37.6	36.3	52.6	1911
1912.....	17.9	22.4	32.9	51.9	62.5	66.6	73.4	69.2	67.4	54.8	42.2	33.8	49.6	1912
1913.....	36.0	26.7	40.1	50.0	60.3	69.8	74.5	73.3	64.1	54.1	4.44	34.5	52.3	1613
1914	33.4	22.1	36.0	50.1	62.2	71.1	74.0	72.8	63.4	56.9	42.1	27.0	50.9	1914
1915.....	26.3	35.2	33.2	54.8	57.8	66.8	71.5	67.5	67.0	55.4	44.3	30.4	50.8	1915
1916.....	35.5	26.5	34.7	49.3	61.8	64.7	76.9	74.4	63.7	53.2	42.6	29.1	51.0	1916
1917.....	28.0	25.4	39.6	48.7	54.1	66.9	72.3	71.3	61.9	46.7	38.7	21.4	47.9	1917
Average	28.9	27.9	38.6	49.9	60.4	69.2	73.4	71.4	65.4	52.9	41.2	31.2	50.9	

TABLE VI.—MONTHLY RAINFALL FOR 30 YEARL FOR THE SEATE Inches.

Date	January	February	March	April	May	June	July	August	September	October	November	December	Annual	Date
1888.....	3.65	1.74	3.55	1.99	3.77	3.41	4.40	5.16	2.27	3.98	4.25	1.47	39.64	1888
1889.....	3.13	1.35	1.38	1.79	3.71	4.13	4.19	1.50	3.62	1.78	4.02	2.81	33.41	1889
1890.....	4.94	5.25	5.29	3.45	5.52	4.50	1.99	4.66	5.56	4.27	2.53	2.37	50.33	1890
1861.....	2.82	4.91	4.19	2.13	2.20	4.82	3.82	3.07	1.50	1.76	5.00	2.39	38.61	1891
1892.....	2.11	3.03	2.86	3.32	6.32	5.61	3.80	2.99	2.36	.73	2.32	1.71	37.16	1892
1893.....	2.56	5.13	2.09	6.37	4.67	3.34	2.49	2.17	1.57	4 24	2.09	2.61	39.63	1893
1894.....	2.14	2.79	2.16	2.31	4.00	2.65	1.56	1.67	3.31	2 01	2.17	2.98	29.75	1894
1895.....	4.00	.69	1.59	2.11	1.80	2.47	2.00	2.96	1.66	1.22	4.11	3.85	28.46	1895
1896.....	1.67	2.21	3.34	2.78	2.67	4.81	8.11	3.38	5.13	1.20	2.63	1.65	39.58	1896
1897.....	1.93	3.64	5.17	3.27	3.63	2.85	4.65	2.72	.78	.64	6.62	2.39	38.59	1897
1898.....	5.25	2.32	6.23	2.38	4 10	2.86	3.98	4.50	2.56	3.72	3.17	2.71	43.78	1898
1899.....	3.01	2.11	4.64	1.61	4.32	2.94	4.17	1.82	2.68	2.14	1.72	3.16	34.32	1899
1900.....	2.37	3.46	2.35	1.89	2.40	3.01	4.62	3.68	1.76	1.89	4.15	1.24	32.82	1900
1901.....	1.70	1.24	2.66	3.40	3.96	4.44	2.72	3.33	2.86	.73	1.53	3.79	32.36	1901
1902.....	1.42	.88	2.76	2.21	3.09	7.48	4.69	1.67	4.55	2.28	2.60	3.95	37.58	1902
1903.....	2.36	4.95	3.51	4.01	2.82	4.02	3.67	3.20	1.52	2.62	2.10	2.07	36.85	1903
1904.....	3.85	2.69	5.67	3.53	3.79	2.88	4.13	2.74	1.95	1.50	.37	3.09	36.19	1904
1905.....	1.73	1.58	2.50	3.10	5.63	4.72	3.93	4.46	2.86	3.65	2.63	2.29	39.08	1905
1906.....	1.98	1.16	3.97	1.89	2.17	3.42	5.14	4.77	2.92	3.19	2.59	3.68	36.88	1906
1907.....	6.06	.85	5.55	2.74	3.47	4.57	5.36	2.48	3.92	2.76	1.93	3.16	42.85	1907
1908.....	1.82	4.10	5.43	3.71	4.72	2.51	4.08	2.59	.58	1.17	1.06	2.33	34.10	1908
1909.....	3.24	5.39	2.77	4.13	4.72	5.86	3.76	3.56	1.78	2.31	2.52	2.62	42.66	1909
1910.....	4.48	4.05	.26	3.49	3.80	2.66	3.17	1.58	4.05	4.19	1.89	2.41	36.03	1910
1911.....	3.90	1.95	2.33	4.35	1.69	3.92	2.40	5.39	4.87	4.99	2.91	3.93	42.63	1911
1912.....	2.12	2.08	4.17	4.47	3.12	3.17	5.70	4.08	3.11	2.44	1.10	2.26	37.82	1912
1913.....	7.01	1.94	8.40	3.35	3.53	1.87	5.20	2.52	2.37	3.36	3.52	1.68	44.75	1913
1914.....	2.30	3.04	2.42	4.01	3.11	3.14	2.19	5.08	1.41	3.42	1.53	3.77	35.42	1914
1915.. ...	3.40	1.96	1.44	1.42	3.99	4.36	6.32	4.52	4.51	2.39	2.68	3.84	40.83	1915
1916.....	5.07	1.83	4.15	2.35	4.27	4.86	1.92	3.11	2.56	2.12	2.11	2.89	37.24	1916
1917.....	3.78	1.43	3.65	3.38	4.18	4.99	3.88	2.70	1.86	4.81	0.54	1.31	36.51	1917
Average	3.19	2.66	3.55	3.03	3.73	3.88	3.93	3.27	2.75	2.58	2.61	2.98	37.86	

TABLE VII.—MEAN TEMPERATURE AND RAINFALL AT THE EXPERIMENT STATION AND FOR THE STATE IN 1917, AND FOR 30 YEARS

	January	February	March	April	May	June	July	August	September	October	November	December	Year
Mean temperature at the Station, 1917 . .....degrees..	25.6	21.3	36.3	47.7	52.7	66.3	71.8	70 7	60.1	45.4	36.5	20.7	46.3
Thirty-year average temperature at the Station.....do....	26.7	28.0	35.6	48.3	56.5	67.2	69.1	67.3	63.8	49.5	40.0	29.0	47.6
Mean temperature for the State, 1917..... .....do....	28.0	25.4	39.6	48.7	54.1	66.9	72.3	71.3	61.9	46.7	38.7	21.4	47.9
Thirty-year average temperature for the State... ....do....	28.9	27 9	38.6	49.9	60.4	69.2	73.4	71.4	65.4	52.9	41.2	31.2	50.9
Rainfall at the Station, 1917.....inches..	3.12	1.30	3.66	2.00	3.94	4.84	2.20	2.44	1.48	4.76	0.44	1.64	31.82
Thirty-year average rainfall at the Station.....do....	3.28	2.86	3.52	2.96	3.79	4.16	4.02	3.42	3.25	2.55	2.67	2.64	39.62
Rainfall for the State, 1917.. ....do....	3.78	1.43	3.65	3.38	4.18	4.99	3 88	2.70	1.86	4.81	0.54	1.31	36.51
Thirty-year average rainfall for the State.....do...	3.19	2 66	3.55	3.03	3.73	3.88	3.93	3.27	2.75	2.58	2.61	2.68	37.86

TABLE VIII.—SUMMARY OF METEOROLOGICAL DATA BY MONTHS FOR 1917

Month	Temperature (degrees)											Number of days				Precipitation (inches)			Prevailing wind
	Mean	Highest	Date	Lowest	Date	Range	Mean daily range	Greatest daily range	Date	Least daily range	Date	Clear	Partly cloudy	Cloudy	Rain 0.01 inch or more	Monthly rainfall	Average daily rainfall	Monthly snowfall	
AT THE STATION																			
January	25.6	56	* 5	—11	15	67	20.8	5	* 5	5	11	5	8	18	14	3.12	.101	9.00	S. W.
February	21.3	59	26	—15	13	74	20.0	39	13	1	1	1	4	23	8	1.30	.046	6.00	S. W.
March	36.3	72	31	2	6	70	19.2	39	*20	1	27	4	10	17	16	3.66	.118	6.25	S. W.
April	47.7	82	*18	20	14	62	21.8	44	11	9	8	8	6	16	10	2.00	.067	T	N. E.
May	52.7	86	18	31	* 3	55	20.9	34	18	7	* 5	9	6	16	15	3.94	.127	.....	N. W.
June	66.3	92	26	37	17	55	24.1	36	*21	13	*10	16	3	11	13	4.84	.161	.....	S. W.
July	71.8	96	31	46	* 4	50	23.3	35	6	11	* 8	21	4	6	10	2.20	.071	.....	S. W.
August	70.7	95	1	49	*10	46	24.0	38	20	9	22	19	8	4	11	2.44	.079	.....	S. W.
September	60.1	85	2	33	11	52	28.7	44	26	10	6	19	8	3	7	1.48	.049	.....	N. E.
October	45.4	76	18	24	*14	52	21.7	40	2	10	25	6	11	14	16	4.76	.154	4.00	N. W.
November	36.5	65	6	9	25	56	22.1	40	9	5	28	12	4	14	7	0 44	.015	1 00	N. W.
December	20.7	48	24	—19	30	67	17.6	39	18	6	* 6	6	3	22	7	1.64	.053	16.25	S. W.
Total or average	46.3	96	July 31	—19	Dec. 30	115	22.0	44	*Apr. 11	1	*Feb. 1	126	75	164	134	31.82	.087	42.50	S. W.
FOR THE STATE																			
January	28.0	74	31	—16	15	90	.....	48	27	.....	.....	10	8	13	11	3.78	.122	11.00	S. W.
February	25.4	75	26	—21	12	96	.....	48	1	.....	.....	8	9	11	7	1.43	.051	6.60	S. W.
March	39.6	84	31	— 9	6	93	.....	55	31	.....	.....	10	7	14	12	3.65	.118	7.70	S. W.
April	48.7	90	20	13	9	77	.....	54	17	.....	.....	9	8	13	10	3.38	.113	0.70	N. W.
May	54.1	93	17	26	* 3	67	.....	46	18	.....	.....	9	10	12	13	4.18	.135	T	S. W.
June	66.9	100	26	33	17	67	.....	45	18	.....	..	11	11	8	14	4.99	.166	.....	S. W.
July	72.3	103	31	43	5	60	.....	44	28	.....	.....	14	10	7	10	3.88	.125	... ..	S. W.
August	71.3	101	1	38	26	63	.....	47	26	.....	.....	15	9	7	9	2.70	.087	.....	S. W.
September	61.9	93	2	28	25	65	.....	50	26	.....	.....	18	7	5	6	1.86	.062	.....	N. E.
October	46.7	87	18	18	24	69	.....	50	30	. ...	.....	7	6	15	13	4.81	.155	2.20	S. W.
November	38.7	80	10	5	25	75	.....	54	10	.....	.....	13	6	11	5	0.54	.018	1.90	S. W.
December	21.4	60	21	—31	11	91	.....	53	30	.....	.....	9	8	14	8	1.31	.042	13.20	S. W.
Total or average	47.9	103	July 31	—31	Dec. 11	134	.....	54	Nov. 10	.....	...	133	102	130	118	36.51	.099	43.30	S. W.

*On other dates also.

TABLE IX.—SUMMARY OF METEOROLOGICAL DATA FOR 1915-17 AND FOR ENTIRE PERIOD*

	1915	1916	1917	Summary for period
AT EXPERIMENT STATION				
Mean temperature.....degrees..	48.9	48.9	46.3	49.2
Highest temperature.....do....	91 July 16	99 Aug. 21	96 July 31	101 July 4, 1911
Lowest temperature.....do....	—13 Jan. 24	—7 Feb. 22	—19 Dec. 30	—24 Jan. 13, '12
Range of temperature.....do....	104	106	115	125
Mean daily range of temperature.....do....	20.8	23.5	22.0	21.2
Greatest daily range of temperature...do....	42 Apr. 8	50 Oct. 4	44 Apr. 11	55 Oct. 6, '95
Least daily range of temperature.....do....	2 Jan. 12	0 Dec. 22	1 Feb. 1	0 Dec. 22 '16
Number of clear days.....	132	150	126	134
Number of partly cloudy days.....	72	74	75	88
Number of cloudy days.....	161	142	164	143
Number of days rain fell.....	132	141	134	130
Total yearly rainfall.....inches..	42.06	34.93	31.82	39.61
Greatest monthly rainfall.....do....	8.35 July	5.25 June	4.84 June	11.84 Mar. '13
Least monthly rainfall.....do....	1.17 Mar.	1.07 Sept.	.44 Nov.	.29 Sept. '97
Prevailing direction of wind.....	S. W.	S. W.	S. W.	S. W.
FOR THE STATE				
Mean temperature.....degrees..	50.8	51.0	47.9	50.9
Highest temperature.....do....	99 July 31	104 Aug. 21	103 July 31	113 July 4, '97
Lowest temperature.....do....	—22 Jan. 24	—18 Feb. 14	—31 Dec. 11	—39 Feb. 10, '99
Range of temperature.....do....	121	122	134	152
Greatest daily range of temperature...do....	54 Apr. 8	56 Jan. 13	57 Nov. 10	67 Sept. '97
Average number of days rain fell.....	123	119	118	120
Mean yearly rainfall.....inches..	40.83	37.24	36.51	37.87
Mean daily rainfall.....do....	.111	.101	.099	.104
Prevailing direction of wind.....	S. W.	S. W.	S. W.	S. W.

*Summary at Experiment Station for 30 years; for State, 35 years. For data for 1888-1913 at Experiment Station and for 1883-1913 for State, see Bul. 277.

TABLE X.—DATE OF FIRST AND LAST KILLING FROST AT THE EXPERIMENT STATION AT WOOSTER, AND NUMBER OF TIMES THE MERCURY FELL BELOW ZERO SINCE 1894

Year	Date of killing frosts		Number of days mercury fell below zero				
	Last in spring	First in autumn	December	January	February	March	Total
1894.....	April 13	Oct. 7	2	.....	1	.....	3
1895.....	May 22	Sept. 28	2	5	5	.....	12
1896.....	April 24	Sept. 24	.....	1	3	.....	4
1897.....	May 26	Sept. 21	.....	4	.....	.....	4
1898.....	May 9	Oct. 16	.....	1	2	.....	3
1899.....	May 22	Sept. 30	2	2	8	.....	12
1900.....	May 10	Oct. 18	.....	2	4	1	7
1901.....	May 16	Oct. 2	4	2	.....	1	7
1902.....	April 28	Sept. 16	1	.....	4	.....	5
1903.....	May 4	Oct. 23	4	3	3	.....	10
1904.....	April 20	Sept. 22	1	7	8	.....	16
1905.....	May 24	Oct. 13	.....	2	9	.....	11
1906.....	May 10	Oct. 11	.....	.....	6	1	7
1907.....	May 12	Oct. 14	.....	5	3	.....	8
1908.....	April 17	Sept. 30	.....	.....	1	.....	1
1909.....	May 12	Oct. 19	1	1	1	.....	3
1910.....	May 15	Oct. 29	.....	2	5	.....	7
1911.....	May 5	Oct. 24	.....	1	.....	.....	1
1912.....	June 8	Sept. 30	.....	11	7	.....	18
1913.....	June 10	Sept. 23	.....	.....	1	.....	1
1914.....	May 2	Oct. 27	4	.....	6	.....	10
1915.....	May 27	Oct. 10	.....	4	.....	.....	4
1916.....	April 28	Sept. 19	5	2	1	1	9
1917.....	May 11	Oct. 2	9	2	8	.....	19
Total or av....	May 11	Oct. 7	35	57	86	4	182

TABLE XI.—MONTHLY MAXIMUM AND MINIMUM TEMPERATURE FOR 30 YEARS AT WOOSTER—Degrees

Date	January		February		March		April		May		June		July		August		September		October		November		December	
	Highest	Lowest	Highest	Lowest	Highest	Lowest	Highest	Lowest	Highest	Lowest	Highest	Lowest	Highest	Lowest	Highest	Lowest	Highest	Lowest	Highest	Lowest	Highest	Lowest	Highest	Lowest
1888	54	— 5	54	— 1	67	8	84	19	82	31	89	40	90	43	92	41	82	31	69	27	72	19	57	9
1889	54	12	54	— 5	71	16	80	21	90	30	87	38	92	49	90	45	92	37	76	23	65	16	65	18
1890	66	5	65	14	60	1	74	23	83	30	88	46	94	45	95	40	88	38	81	30	66	24	48	15
1891	51	12	60	3	61	0	83	21	82	28	89	44	89	49	99	53	98	42	88	25	71	10	58	16
1892	54	—20	54	6	65	10	76	28	86	38	90	56	98	48	92	49	88	36	81	25	67	16	61	— 2
1893	51	— 9	47	— 2	75	10	83	24	84	36	92	45	95	47	93	37	95	28	85	24	66	15	62	6
1894	56	1	64	— 1	75	14	92	24	83	35	93	37	98	41	96	41	93	36	80	28	65	31	57	— 7
1895	54	— 6	60	— 6	59	9	80	21	94	27	98	35	92	42	94	42	93	34	73	19	72	18	61	— 2
1896	53	— 2	58	— 6	65	4	89	19	86	44	87	39	92	45	93	41	92	34	71	21	69	13	56	1
1897	61	—18	54	0	69	11	79	21	78	31	88	37	96	50	92	42	96	28	86	25	65	12	60	2
1898	64	— 1	64	— 9	71	12	77	16	81	32	90	40	96	45	90	46	90	38	86	24	66	13	56	1
1899	55	— 6	57	—21	67	9	86	21	86	30	92	40	94	45	95	39	94	32	92	22	66	22	63	— 2
1900	54	— 5	65	—10	57	— 4	78	20	89	25	90	44	95	44	94	49	89	41	86	30	69	6	55	11
1901	53	— 4	40	0	69	— 1	82	22	82	33	91	38	95	50	94	47	86	34	79	26	67	18	64	— 11
1902	47	2	59	— 9	69	9	83	24	97	29	89	39	93	46	88	40	85	32	77	27	72	24	60	— 5
1903	60	— 8	63	— 9	76	21	74	19	89	27	88	41	94	42	92	43	89	32	79	26	71	9	49	— 2
1904	60	—21	57	—10	74	13	72	12	88	33	88	44	92	46	90	42	89	31	83	19	68	15	63	— 1
1905	59	— 8	43	—12	79	10	77	23	82	31	89	38	92	50	90	46	87	36	80	23	61	16	52	13
1906	72	6	65	—14	61	— 5	80	21	86	29	92	47	88	46	91	48	90	44	74	22	72	23	58	6
1907	67	—14	50	— 5	82	12	78	15	81	29	89	40	88	40	90	43	88	34	82	22	55	18	56	9
1908	51	4	56	+ 3	75	21	80	24	89	30	91	36	92	46	95	43	95	28	84	24	68	17	59	7
1909	66	—11	60	— 2	60	12	81	13	84	31	89	42	89	45	89	41	90	30	81	22	72	21	66	— 6
1910	45	— 1	48	—12	84	18	81	23	82	25	90	35	94	44	94	38	91	34	85	24	66	14	49	0
1911	56	—11	62	9	67	4	77	16	92	28	94	46	101	43	97	41	87	37	75	22	65	10	61	7
1912	44	—24	55	—16	68	6	78	23	86	36	88	31	90	51	89	41	93	30	82	26	68	18	58	8
1913	57	4	62	— 2	74	1	83	20	86	25	96	32	95	42	96	45	93	28	81	24	73	12	56	7
1914	64	0	51	—18	67	6	87	19	91	29	95	36	95	45	94	49	93	34	82	26	74	13	59	—11
1915	50	—13	60	0	54	8	88	21	78	28	87	37	91	46	88	36	90	33	80	23	74	19	52	10
1916	70	— 4	57	— 7	76	— 1	78	21	86	34	84	35	96	50	99	41	94	30	89	26	71	16	61	— 6
1917	56	—11	59	—15	72	2	82	20	86	31	92	37	96	46	95	49	85	33	76	24	65	9	48	—19
Extremes	72	—24	65	—21	84	— 5	92	12	97	25	98	31	101	40	99	37	98	28	92	19	73	6	66	—19

TABLE XI.—MONTHLY MAXIMUM AND MINIMUM TEMPERATURE FOR 30 YEARS FOR STATE—(Degrees)—Concluded

Date	January		February		March		April		May		June		July		August		September		October		November		December	
	Highest	Lowest	Highest	Lowest	Highest	Lowest	Highest	Lowest	Highest	Lowest	Highest	Lowest	Highest	Lowest	Highest	Lowest	Highest	Lowest	Highest	Lowest	Highest	Lowest	Highest	Lowest
1888	68	—15	68	—10	77	— 9	92	19	91	23	102	34	97	42	102	35	92	26	80	22	80	17	62	1
1889	61	8	70	—14	82	10	88	15	96	26	92	38	98	46	100	40	98	28	82	17	77	9	73	10
1890	75	1	73	5	69	— 4	86	20	92	28	101	39	101	43	103	40	92	33	85	29	76	17	65	3
1891	65	3	80	— 2	74	— 5	95	15	93	25	98	40	95	41	101	39	99	36	93	20	76	0	66	9
1892	61	—27	74	— 1	80	— 6	90	14	99	28	101	47	103	40	99	45	96	34	89	20	76	8	70	—12
1893	63	—24	68	—14	87	— 8	93	20	94	23	102	40	101	42	101	37	100	24	95	15	76	— 2	72	— 5
1894	66	—16	76	—15	91	3	97	16	98	31	102	29	105	36	104	36	103	27	90	15	79	4	70	—27
1895	62	—19	70	—24	86	— 7	90	16	102	19	105	29	106	34	103	31	105	25	84	8	85	5	79	—13
1896	70	—14	78	—18	73	— 7	103	15	99	36	98	33	102	39	102	35	100	25	85	17	79	7	67	—15
1897	71	—27	72	— 9	82	5	92	11	91	25	102	31	113	44	101	38	105	25	97	20	76	8	71	— 7
1898	71	—18	72	—20	84	5	87	10	92	29	99	39	105	38	100	40	102	33	96	20	76	2	67	—18
1899	66	—15	67	—39	76	0	94	6	96	28	102	36	105	41	104	39	107	26	94	20	79	18	69	— 7
1900	67	—20	80	—20	70	9	87	15	97	20	96	38	103	38	103	40	100	33	93	23	80	0	65	— 2
1901	67	—10	60	—20	84	8	91	18	90	26	103	30	109	48	101	42	98	29	88	20	79	10	73	—19
1902	63	—11	66	—17	82	4	90	17	98	24	98	33	100	43	97	37	94	24	88	21	87	17	63	—11
1903	73	—13	69	—20	85	11	88	10	93	22	95	35	104	42	101	38	98	26	93	15	88	2	57	—11
1904	70	—30	75	—18	86	— 1	81	7	95	27	98	37	99	41	97	38	99	23	92	15	75	0	69	—16
1905	65	—17	54	—22	85	— 5	89	12	93	26	99	34	100	44	96	41	95	30	89	20	71	10	58	2
1906	79	—14	72	—23	74	—12	91	18	94	24	100	34	98	43	101	43	98	36	91	18	82	14	68	—15
1907	75	—23	66	—19	96	— 2	86	10	89	24	96	36	98	37	96	40	93	29	88	19	71	11	69	2
1908	59	— 8	66	—22	85	12	91	16	96	25	100	33	102	42	104	37	100	24	90	15	77	5	68	— 2
1909	74	—17	70	—17	70	6	90	13	91	24	96	36	97	40	96	35	95	25	86	16	80	15	75	—20
1910	62	—24	68	—25	90	12	88	19	88	21	97	33	98	43	100	36	93	34	94	18	78	11	63	—10
1911	68	—19	76	— 2	81	— 1	86	8	101	25	101	40	107	41	104	34	97	33	88	20	79	8	79	— 3
1912	57	—37	68	—25	80	— 3	89	15	91	31	93	28	101	42	95	40	99	29	93	23	82	3	74	— 5
1913	70	3	77	—15	80	— 8	90	18	95	23	105	29	103	40	102	39	102	26	96	18	78	2	65	— 3
1914	75	—17	67	—24	78	— 2	91	12	102	26	104	32	106	41	101	41	97	26	91	17	80	5	74	—19
1915	64	—22	70	— 9	61	3	96	12	89	27	96	31	99	43	97	34	96	27	89	20	80	11	62	1
1916	75	— 8	69	—18	87	—10	89	18	95	29	94	31	103	45	104	39	101	27	93	22	80	5	72	—15
1917	74	—16	75	—21	84	— 9	90	13	93	26	100	33	103	43	101	38	93	28	87	18	80	5	60	—31
Extremes	79	—37	80	—39	96	—12	103	6	102	19	105	28	113	34	104	31	107	23	97	8	88	— 2	79	—31

TABLE XII.—MONTHLY RAINFALL AT DISTRICT AND COUNTY EXPERIMENT FARMS—Inches

Date	January	February	March	April	May	June	July	August	September	October	November	December	Year	Date
						Strongsville								
1897	0.91	1.62	3.29	3.88	5.99	1.88	5.56	3.25	1.13	0.87	7.02	1.92	37.32	1897
1898	5.47	3.75	4.82	2.37	3.43	5.60	4.25	5.69	2.72	5.59	3.25	7.39	54.33	1898
1899	4.35	2 32	5.25	3.11	5.58	2.10	5.75	.61	3.14	2.86	1.55	6.36	42.98	1899
1900	3.22	5.53	3.01	2.22	1.85	1.36	4.73	2.49	3.56	2.22	4.91	1.94	37.04	1900
1901	2.73	2.20	4.35	4.76	5.14	3.32	3.15	7.46	5.51	.47	2.51	5.34	48.94	1901
1902	1.17	1.40	2.64	2.91	4.29	9.34	7.39	4.52	5.58	2.73	2.35	3.34	47.66	1902
1903	2.37	2.97	3.18	6.68	1.45	3.78	6.49	8.72	1.88	3.09	2.70	2.62	45.93	1903
1904	6.51	3.59	4.68	3.47	6.07	1.45	5.80	3.42	2.73	1.20	.50	3.87	43.35	1904
1805	2.48	2.73	3.24	3.97	4.38	2.18	5.04	4.11	3 50	2.95	2.92	1.66	39.16	1905
1906	2.03	2.06	.....	1.93	1.01	4.67	2.72	4.30	6.70	.....	4.77	5.12	.....	1906
1907	5.21	1.20	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1907
1908	.....	.....	.....	.....	2.82	2.17	3.70	3.10	1.00	1.60	1.08	1.90	.....	1908
1909	2.48	2.56	.....	3.49	4.13	3.20	4.40	3.60	2.71	2.60	2.80	1.30	.....	1909
1910	4.80	2.21	1.10	.....	3.05	2 50	1.00	1.37	4.85	3.90	3.98	2.99	.....	1910
1911	.....	1.16	1.85	3.03	1.95	1.80	.80	3.28	5.33	3.85	.....	1.51	.....	1911
1912	1.38	1.49	2.91	5.12	3.62	1.89	6.88	4.74	4.34	2.40	.20	1.89	36.77	1912
1913	4.50	1.45	9.30	2.08	2.15	1.30	2.60	1.70	3.30	3.59	2.61	1.13	35.71	1913
1914	2.00	1.90	2.40	4.95	5.30	3.40	2.00	5.32	.40	.....	.....	.....	.....	1914
1915	1.79	1.45	.....	.....	2.25	3.46	3.86	2.47	3.86	.95	1 41	1.52	.. ..	1915
1916	3.10	.48	1.26	2.22	2.72	5.02	1.20	1.24	3.60	2.37	2.01	1.19	26.41	1916
1917	1.92	1.40	2.88	3.42	4.83	2.64	2.32	2.24	2.11	4.21	.87	1.47	30.31	1917
Average.	3.07	2.17	3.51	3.51	3.60	3.15	3.98	3.68	3.40	2.64	2.64	2.87	40.46	

TABLE XII.—MONTHLY RAINFALL AT DISTRICT AND COUNTY EXPERIMENT FARMS—Inches (Continued)

Date	January	February	March	April	May	June	July	August	September	October	November	December	Year	Date
Germantown														
1905	.....	.....	.....	3.45	7.70	3.00	3.80	7.90	3.56	4.10	2.24	2.28	.....	1905
1906	2.92	1.07	6.93	1.88	1.34	2.88	6.24	7.46	2.30	1.65	3.80	4.32	42.79	1906
1907	7.22	.32	6.25	2.26	3.20	3.65	4.10	1.93	5.64	2.92	3.25	3.22	43.96	1907
1908	2.11	6.33	4.24	4.53	4.47	1.42	3.86	1.36	.35	.27	1.70	1.31	31 95	1908
1909	3.41	7.67	2.07	5.58	6.98	5.93	4.50	3.34	.89	3.13	1.95	4.00	49.45	1909
1910	3 00	4.25	.10	1.87	5.08	1.58	3.95	1.11	3.96	7.60	.96	2.85	36.41	1910
1911	5.00	1.46	3.00	6.01	1.36	2.67	1.78	4.56	5.16	4.48	3.06	3.81	42.35	1911
1912	3 23	1.68	4.29	6.51	3.49	2.24	3.78	9.05	2.50	2 79	.72	3.30	43.58	1912
1913	8 40	2.05	7.32	5.25	2.62	2.40	3.49	2.23	2.33	2.56	4.80	.88	44.33	1913
1914	2.62	3.75	3.05	2.47	1.43	2.63	2.51	6.21	.18	2.19	2.03	2 72	31.79	1914
1915	2 95	1.75	1.34	1.54	5.58	3.01	5.38	7.40	5.62	2 12	2.32	3.53	42.54	1915
1916	6.34	1.41	3.20	2.13	3.58	5.22	1.76	3.06	2.78	1.91	1.91	2.80	36.10	1916
1917	4.15	1.56	4.31	3.27	4.11	4.37	3.43	3.56	I.82	3.77	0.50	1.95	36.80	1917
Average	4.28	2.77	3.84	3.60	3.92	3.15	3.74	4.55	2.85	3.04	2.25	2.84	40.17	
Carpenter														
1903	.....	.....	.....	3.75	5.69	5.07	4.23	1.02	1.02	2.60	2.73	3.28	.....	1903
1904	3.74	2.89	5.07	3.03	2.69	3.16	3.79	2.71	2.08	1 10	.18	3.40	33.84	1904
1905	1.02	1.35	4.07	2.70	7.02	5.11	3.77	4.11	1.02	5.20	2.45	3.51	41.33	1905
1906	3.58	1.85	3.82	1.43	1.40	6.39	1 40	2.92	3.24	2.58	3.50	3.50	35.61	1906
1907	8.94	2.28	6.13	3.57	3.47	4.49	4.84	4.10	2.94	2.38	2.14	1.72	47.00	1907
1908	1.37	4.31	7.80	5.15	3.36	2.92	3.74	3.50	.48	.85	1.37	2.13	37.98	1908
1909	3.05	5 72	2.77	4.10	4.29	7.63	4.18	2.18	.86	2.12	.90	2.05	39.85	1909
1910	6.40	4.70	.20	3.23	2.91	2.35	3.40	1.74	.99	1 68	1.42	2.80	31.82	1910
1911	5.56	3.08	2.26	3.90	2.06	6.14	1.19	4.69	5.18	3.68	2.20	4.01	43.95	1911
1912	1.48	2.44	3.39	4.04	2.90	2.92	5.46	2.56	2.51	1.80	.38	2.09	31.97	1912
1913	6.78	1.98	1.71	2.74	4.23	2.29	2.64	2.38	2.07	2.89	2.34	2.36	34.41	1913
1914	1.17	2.05	1.72	2.84	2.33	2.53	1.23	4.88	1.07	2.98	1.08	4.65	28.53	1914
1915	2 91	.95	1.05	1.22	4.95	4.40	3.90	2.76	3.64	1.96	3.35	4.85	35.94	1915
1916	4.91	3.33	3.83	1.95	4.72	3.57	2.20	2.95	1.89	2.22	1.46	3.29	36.34	1916
1917	5.28	1.37	6.19	3.87	3.61	5.28	5.20	1.58	1.52	4.71	.65	.65	39.91	1917
Average	4.01	2.74	3.57	3.17	3.71	4.28	3.41	2.94	2.03	2.58	1.74	2.95	37.03	

TABLE XII.—MONTHLY RAINFALL AT DISTRICT AND COUNTY EXPERIMENT FARMS—Inches (continued)

Date	January	February	March	April	May	June	July	August	September	October	November	December	Year	Date
Marietta														
1916	3.24	2.15	2.78	1.80	5.55	4.40	2.12	4.08	2 23	2.74	1.95	3.53	36.57	1916
1917	4.50	1.96	4.07	4.55	4.49	6.36	3.91	3.04	1.69	5.50	0.73	0.91	41.71	1917
Average.	3.87	2.05	3.42	3.17	5.02	5.38	3.01	3.56	1.96	4.12	1.34	2.22	39.14	
Canfield														
1916	.....	.....	.....	.....	5.22	5.12	3.45	1.49	2.38	2.19	.....	1.96	....	1916
1917	2.33	1.05	1.91	1.97	2.74	5.41	3.63	2.39	2.19	5.74	0.73	1.23	31.32	1917
Average.	2.33	1.05	1.91	1.97	3.98	5.26	3.54	1.94	2.28	3.96	0.73	1.59	.....	
Mt. Healthy														
1916	5.91	1.76	2.57	2.68	4.01	5.13	1.45	3.29	2.03	1.05	1.78	2.73	34.39	1916
1917	5.04	1.61	3.67	4.45	5.13	4.81	4.61	1.41	3.79	4.50	0.36	2.38	41.76	1917
Average.	5.47	1.68	3.12	3.56	4.57	4.97	3.03	2.35	2.91	2.77	1.07	2.55	38.07	

TABLE XII.—MONTHLY RAINFALL AT DISTRICT AND COUNTY EXPERIMENT FARMS—Inches (concluded)

Date	January	February	March	April	May	June	July	August	September	October	November	December	Year	Date
Paulding														
1916	4.63	0.68	2.51	2.02	5.98	6.01	1.02	1.28	1.78	1.29	2.07	1.87	31.14	1916
1917	. ..	0 52	3.98	3.85	4.82	4.14	3.29	1.70	1.67	6.39	0.49	0.59	.....	1917
Average	4.63	0.60	3.24	2.93	5.40	5.07	2.15	1.49	1.72	3.84	1.28	1.23	....	
Batavia														
1916	6 29	2 39	4.59	1 94	3 93	4.27	1.31	4.97	2.25	2 14	1.97	3.64	39 69	1916
1917	4.51	1.59	3.93	3.73	4 44	3.03	4.12	1.84	2 23	3.00	0.63	1.48	34.53	1917
Average.	5.40	1.99	4.26	2.83	4.18	3.65	2.71	3.40	2.24	2.57	1.30	2 56	37.11	

TABLE XIII—MONTHLY MEAN TEMPERATURE AT COUNTY AND DISTRICT EXPERIMENT FARMS—Degrees

Date	January	February	March	April	May	June	July	August	September	October	November	December	Year	Date
Marietta														
1916	38.6	29.7	38.4	50.6	63.8	65.9	76.5	74.6	63.4	53.7	43 1	31.8	52.5	1916
1917	30.6	29.8	40.7	51.7	56.0	67.3	72.8	72.2	62.5	49.2	39.3	24.0	49 7	1917
Average	34.6	29.7	39.5	51.1	59.9	66.6	74.6	73.4	62.9	51.4	41.2	27.9	51.1	
Canfield														
1916	.....	.....	.....	.....	59.7	61.8	72.8	71.2	62.6	52.4	41.3	28 8	.....	1916
1917	27.0	22.6	37.3	46.1	52.3	65.9	71.6	70.0	59.4	45.6	36.2	21.0	46.2	1917
Average	.....	....	.....	.....	56.0	63.8	72.2	70.6	61.0	49.0	38.7	24.9	.....	
Mt. Healthy														
1916	37.8	30.0	38.7	51.4	64.8	66.4	77.6	76.0	65.6	55.8	45.6	31.8	53.5	1916
6917	32.0	30.8	42.8	51.5	56.6	68.5	73.0	72.8	64.6	48.2	41.9	21.7	50.4	1917
Average	34.9	30.4	40.7	51.4	60.7	67.4	75.3	74.4	65.1	52.0	43.7	26.7	51.9	

TABLE XIII.—MONTHLY MEAN TEMPERATURE AT COUNTY AND DISTRICT EXPERIMENT FARMS—Degrees (Continued)

Date	January	February	March	April	May	June	July	August	September	October	November	December	Year	Date
Paulding														
1916	31.4	24.6	33.2	49.0	60.4	64.4	78.8	76.8	64 0	52 4	41.2	25.2	50.1	1916
1917	24.6	21.8	38.6	47.0	53.2	65.2	71.2	70.4	60.8	44 0	37.8	19.7	46.2	1917
Average	28 0	23.2	35.9	48.0	56.8	64.8	75.0	73.6	62.4	48.2	39.5	22.4	48.1	
Batavia														
1916	38 8	30 7	39.4	51 8	64.6	67.0	78 3	75 8	65.0	55.3	45 8	32.2	53.7	1916
1917	32.1	29 2	42.6	52 1	57.2	68 6	73.6	73.6	65.4	48.6	41.8	23.0	50.6	1917
Average	35.4	29.9	41.0	51.9	60 9	67.8	75.9	74.7	65.2	51.9	43.8	27 6	52.1	
Germantown														
1915	26.6	38.2	34.8	56.6	59.8	68.4	72.8	68.0	68.0	56.7	46.0	31.8	52.3	1915
1916	36.4	28.6	37.2	51.0	63.5	65.8	78.2	75.4	65.0	54.0	43.8	30.7	52.5	1916
1917	29.4	29.4	41.8	50.8	55.3	67.3	72.1	71.8	62.9	47.6	41.0	21.3	49.2	1917
Average	30.8	32.1	37.9	52.8	59.5	67.2	74.4	71.7	65.3	52.8	43.6	27.9	51.3	

TABLE XIV.—DAILY EVAPORATION (inches) AND WIND MOVEMENTS (miles) AT THE EXPERIMENT STATION, WOOSTER, JULY-OCTOBER, 1916

Date	July		August		September		October	
	Evaporation	Wind movement	Evaporation	Wind movement	Evaporation	Wind movement	Evaporation	Wind movement
1	0.021	34	0.241	47	0.200	30	0.109	27
2	.230	33	.175	44	.071	39	.116	60
3	.244	54	.214	46	.204	58	.132	34
4	.115	65	.245	32	.186	36	.111	29
5	.206	50	.154	37	.172	61	.148	41
6	.228	43	.192	32	.224	54	.141	36
7	.220	38	.249	25	.072	39	.124	43
8	.216	29	.278	46	.247	61	.149	28
9	.202	40	.132	30	.168	40	.120	54
10	.100	35	.240	46	.168	46	.090	104
11	.224	39	.169	30	.261	89	.086	38
12	.266	45	.162	41	.197	23	.089	32
13	.250	50	.267	55	.240	100	.158	78
14	.118	26	.216	54	.183	41	.063	98
15	.154	38	.222	27	.015	37	.090	30
16	.276	73	.175	36	.168	62	.046	83
17	.239	21	.194	28	.164	45	.115	97
18	.012	41	.198	22	.059	48	.091	68
19	.175	41	.207	21	.165	68	.119	125
20	.205	40	.178	31	.132	38	.133	80
21	.250	53	.218	25	.219	82	.121	202
22	.199	34	.216	30	.109	53	.017	67
23	.276	52	.269	54	.131	80	.069	44
24	.264	34	.177	66	.103	51	.068	23
25	.196	33	.222	46	.126	51	.034	29
26	.104	22	.147	27	.138	51	.073	107
27	.197	33	.187	32	.170	76	.082	54
28	.238	33	.306	41	.260	123	.086	61
29	.266	36	.194	40	.074	69	.069	35
30	.257	33	.162	22	.093	76	.109	60
31	.227	30	.191	29	.....	.....	.077	26
Total	6.177	1,218	6.397	1,095	4.719	1,727	3.035	1,893
Average	.199	39	.206	35	.157	58	.098	61

TABLE XIV.—DAILY EVAPORATION (inches) AND WIND MOVEMENTS (miles) AT THE EXPERIMENT STATION, WOOSTER, APRIL-OCTOBER, 1917—Concluded

Date	April		May		June		July		August		September		October	
	Evaporation	Wind movement	Evaporation	Wind movement	Evaporation	Wind movement	Evaporation	Wind movement	Evaporation	Wind movement	Evaposation	Wind movemest	Evaporation	Wind movement
1	.045	89	.097	163	.079	38	.230	49	.295	44	.116	28	.052	83
2	.095	118	.116	105	.111	60	.242	54	.286	11	.157	32	.083	42
3	.079	50	.152	64	.209	98	.226	43	.239	90	.124	20	.042	57
4	.162	124	.124	122	.169	34	.161	31	.211	29	.136	46	.086	66
5	.052	154	.084	97	.092	33	.232	22	.262	32	.166	24	.003	96
6	.032	199	.010	76	.236	57	.134	39	.242	39	.117	66	.075	56
7	.096	163	.016	31	.291	81	.227	45	.250	42	.020	21	.048	42
8	.076	151	.093	62	.152	65	.128	71	.192	58	.089	46	.077	94
9	.086	116	.110	84	.047	47	.179	38	.149	41	.127	31	.042	34
10	.092	117	.106	67	.063	67	.128	53	.142	30	.176	86	.057	49
11	.156	73	.146	75	.162	59	.061	30	.188	23	.112	38	.032	36
12	.149	113	.103	134	.179	34	.142	29	.247	27	.130	27	.039	83
13	.116	174	.106	126	.142	48	.072	37	.106	26	.143	35	.043	57
14	.036	47	.208	129	.278	73	.068	44	.167	31	.141	24	.060	71
15	.051	70	.178	81	.099	72	.171	44	.184	25	.121	22	.081	76
16	.061	36	.164	66	.110	56	.127	25	.168	22	.188	65	.108	48
17	.099	45	.138	56	.169	47	.146	37	.165	51	.112	29	.075	35
18	.074	47	.192	58	.232	36	.138	37	.170	23	.108	26	.053	97
19	.163	57	.291	87	.264	47	.163	33	.206	22	.073	10	.051	64
20	.198	82	.183	81	.240	55	.204	28	.216	22	.165	40	.052	42
21	.188	98	.123	75	.196	37	.232	30	.208	22	.050	48	.038	37
22	.024	83	.076	95	.220	47	.219	26	.055	19	.123	42	.041	30
23	.102	60	.168	115	.134	47	.220	21	.056	26	.120	50	.059	54
24	.134	101	.166	109	.134	82	.220	32	.100	50	.117	35	.079	85
25	.083	110	.151	81	.166	27	.184	31	.239	60	.098	25	.004	83
26	.097	76	.087	50	.231	45	.229	31	.196	45	.108	30	.042	90
27	.081	46	.109	80	.169	42	.209	52	.184	41	.093	47	.038	58
28	.119	56	.063	64	.143	43	.214	29	.168	29	.122	65	.044	82
29	.069	79	.133	143	.154	72	.252	38	.082	36	.108	30	.095	66
30	.041	39	.157	46	.166	31	.263	45	.083	43	.135	105	.055	70
31	.....	.....	.267	87	.....	.....	.31 3	44	.068	6	.....	.....	.053	41
Total	2.856	2,773	4.117	2,709	5.037	1,580	5.734	1,168	5.524	1,065	3,595	1,193	1,806	1,924
Average	.095	92	.133	87	.168	53	.185	38	.178	34	.120	40	.058	62

SUMMARY OF OBSERVATIONS ON WEATHER AT WOOSTER IN 1917

LATITUDE 40° 47′ 01″—LONGITUDE 81° 55′ 48″

ELEVATION ABOVE SEA LEVEL, 1,030 FEET

JANUARY

The mean temperature was 25.6°. This is below the 30-year average for January. The highest, 56°, occurred on the 5th and the lowest, —11°, on the 15th. The precipitation was slightly below the average, the total being 3.12 inches. The ground was covered with ice the last half of month, making travel difficult. The total snowfall was 9 inches.

FEBRUARY

The mean temperature for February was 21.3°. This is 6.7° below the average for this month. The highest, 59°, occurred on the 26th, and the lowest, —15°, on the 13th. The weather for the month as a whole was very cold, with many extremely cold days. The precipitation was less than half the usual amount, mostly in the form of snow.

MARCH

The mean temperature for the month was slightly above the average. The highest, 72°, occurred on the 31st, and the lowest, 2°, on the 6th. The weather remained cold throughout the month with very few warm days. The total precipitation was 3.66 inches. The snowfall was 6.25 inches. The prevailing wind was from the southwest.

APRIL

The mean temperature for April was 47.7°, which is below the 30-year average for this month. The highest, 82°, occurred on the 18th, 19th and 20th and the lowest, 20°, on the 14th. Rain or snow fell on 14 days, yet the total precipitation was light, being only 2 inches. The prevailing wind was from the northeast.

MAY

The mean temperature for the month was 52.7°, which is 3.8° below the average for this month. The highest temperature, 86°, occurred on the 18th and the lowest, 31°, on the 3rd and 10th. A killing frost occurred on the 10th and 11th. Rain fell on 18 days, the total fall being 3.94 inches, which is more than 1 inch above the average for May. Cloudy weather prevailed, with wind from the northwest.

JUNE

The mean temperature for June was 66.3°, which is slightly below the average for this month. The highest, 92°, occurred on the 26th and the lowest, 37°, on the 17th. A light frost was re-

ported on low lands on this date. Rain fell on 15 days, the total precipitation being 4.84 inches, or 0.68 inch more than the 30-year average for June.

JULY

The temperature for the month was above the average. The highest was 96° on the 31st and the lowest, 46°, on the 4th and 5th. The rainfall was very light, being only 2.2 inches. The 30-year average rainfall for this month was 4.02 inches. The prevailing wind was from the southwest.

AUGUST

The mean temperature for August was 70.7°, which is above the 30-year average. The highest, 95°, occurred on the 1st, and the lowest, 49°, on the 10th and 18th. The rainfall for the month was 2.44 inches, which is almost 1 inch below the average for the month. The prevailing wind was from the southwest.

SEPTEMBER

The mean temperature was below the average, and the rainfall light. The highest temperature, 85°, occurred on the 2nd, and the lowest, 33°, on the 11th. Frost occurred on the 11th and 12th, doing damage to crops in lowlands. The total rainfall for the month was 1.48 inches, which is 1.77 inches below the average for September.

OCTOBER

The mean temeprature was 45.4°, which is 4.1° below the average for October. The highest, 76°, occurred on the 18th, and the lowest, 24°, on the 14th and 31st. The weather for the month as a whole was cold and damp. Rain or snow fell on 20 days. The total precipitation for the month was 4.76 inches, which is 2.21 inches above the average for October. The first killing frost was on the 2nd.

NOVEMBER

The first part of November was bright and fair, and the latter part cold and cloudy. The mean temperature was below the average. The highest, 65°, occurred on the 6th and the lowest, 9°, on the 25th. The precipitation was very light, being only 0.44 inch, mostly in the form of snow. The prevailing wind was from the northwest.

DECEMBER

The mean temperature was 20.7°, which is the coldest December on record at this Station. The highest, 48°, occurred on the 24th and the lowest, —19°, on the 30th. This also marks the coldest day on record for this month. The snowfall was heavy, being 16.25 inches. The total precipitation was 1.64 inches.